

**OBSERVING SCHEDULE**

**Survey Log**

**1949 – June 1953**

48" Survey  
Log Book

1. Observing Schedule
2. Observing Log
3. Plate Log
4. Weather Log (in other book)
5. Supply Records
6. Shipping Records
7. Test Records



Run No. 1

# OBSERVING SCHEDULE

## 48" SURVEY

Nov. 10 - 30, 1949

$E$  = end of evening twilight  
 $D$  = beginning of morning twilight  
 $M_s$  = moon set  
 $M_r$  = moon rise

[illegible]

Run No. 1

Nov. 10-30, 1949

## OBSERVING LOG

DATE	PROGRAM	PLATE	EMULSION	NO'S.	Field				
Nov 10/11	Tests	10x10	Polar-axis alignment plate						—
			Installation and adjustment of north finder.						
Nov 11/12	Tests & Survey	103a-E			two rocker test plates.				—
	Test	103a-E	423,970	XE-1	0°30', +18°	Poor seeing (test to Graded)			R
	"	103a-O	420,649	XO-1	"	Broken in processing			R
	"	"	"	XO-2	"	Poor seeing (test to Graded)			R
Nov 12/13	Survey	103a-O	420,649	XO-3	0°0', +18°	contours, poor seeing			R
	"	103a-E	423,970	XE-2	"	Dev. 4 1/2 min, Exp 60min overex.			R
	"	103a-O	420,649	XO-4	1°36', +18°	poor seeing			R
	"	103a-E	423,970	XE-3	"	Dev. 4 3/4 min, Exp 60min overex.			R
	"	103a-O	420,649	XO-5	3°12', +18°	poor seeing			R
	"	103a-E	423,970	XE-4	"	Dev. 5 1/2 min, Exp 60min overex			R
Nov 13/14	Tests	103a-E	423,970	T-1	0°0', +18°	Dev. 5 min exp 20			—
	"	"	"	T-2	"	"	40		—
	"	"	"	T-3	"	"	50		—
	"	"	423,886	T-4	"	"	30	Not developed - pet interloose back	—
	"	"	423,887	T-5	"	"	30		—
	"	"	423,886	T-6	"	"	30		—
Nov. 14/15	Tests.	103a-E		F-1	Focus test filter No. 8	Partly cloudy			—
				F-2	"	"	No. 10	Thin overcast	—
Nov. 15/16	Tests & Survey	103a-O	420,649	T-1	0°0', +18°	Dev. 5	exp. 12		—
		103a-E	423,886	QE-1	S.A. 68	exp. 30 min, 40, 50, 60.			—
Nov 16/17	Tests & Survey	103a-O	420,649	QO-1	S.A. 68	exp. 10, 12, 14, 16 min.			—
		103a-E	423,970	XE-5	0°0', +18°	contours, crack			R
		103a-O	420,649	XO-6	0°0', +18°	E-5			R
		103a-E	423,970	XE-6	1°36', +18°				A✓
		103a-O	420,649	XO-7	1°36', +18°				A✓
		103a-E	423,970	XE-7	3°12', +18°	scratches			R
		103a-O	420,649	XO-8	3°12', +18°	"			R
		103a-E	423,887	XE-8	6°0', +18°	seeing			A✓
		103a-O	420,649	XO-9	6°0', +18°	seeing			A✓
Nov 17/18	Survey	No	observations:		Seeing	0 to 1			

## OBSERVING LOG

DATE	PROGRAM	PLATE	EMULSION	No.	Field	REMARKS	
Nov 18/19	Survey	103a-0	420,649	XO-10	0 <sup>h</sup> 0 <sup>m</sup> +12°	Bright sky all plates fugged	A✓
		103a-E	423,887	XE-9	"	Contours	A✓
		103a-0	420,649	XO-11	1 <sup>h</sup> 36 <sup>m</sup> +12°	Contours	R
		103a-E	423,886	XE-10	"	Emulsion defect	R
		103a-0	420,649	XO-12	3 <sup>h</sup> 12 <sup>m</sup> +12°		A✓
		103a-E	423,886	XE-11	"		A✓
		103a-0	420,649	XO-13	4 <sup>h</sup> 48 <sup>m</sup> +12°	Cracked in processing	R
		103a-E	423,886	XE-12	"	Emulsion defect	R
Nov 19/20	Survey	Wet & partly overcast					
Nov 20/21	Survey	103a-0	420,649	XO-14	0 <sup>h</sup> 24 <sup>m</sup> +12°		R
		E	423,886	XE-13	"		R
		O	"	XO-15	1 <sup>h</sup> 36 <sup>m</sup> +12°		A✓
		E	"	XE-14	"		A✓
		O	"	XO-16	2 <sup>h</sup> 48 <sup>m</sup> +12°		A✓
		E	"	XE-15	"		A✓
		O	"	XO-17	4 <sup>h</sup> 48 <sup>m</sup> +12°	partly cloudy - later	R
		E	"	XE-16	"	"	R
		O	"	XO-18	6 <sup>h</sup> 0 <sup>m</sup> +12°	"	R
		E	"	XE-17	"	"	R
		O	"	XO-19	7 <sup>h</sup> 36 <sup>m</sup> +12°		R
		E	"	XE-18	"		R
Nov 21/22	Tests	103a-E	old	C-1	0 <sup>h</sup> 31 <sup>m</sup> +12°14'	Comet	
		103a-E	10x10	3	optical axis alignment plates		
		4 1/2 minute error in dial, corrected, optical axis aligned.					
Nov 22/23	Survey	All Survey plates O-1, E-1 to O-19, E-19 in error <del>labeled</del> remembered XO-1, XE-1 etc., plate XE-19 fictitious					
		103a-0	420,649	XO-20	0 <sup>h</sup> 0 <sup>m</sup> +6°	good plate	R
		103a-E	423,886	XE-20	"	Emulsion defect: small fox - scratches	R
		O	"	O-21	1 <sup>h</sup> 36 <sup>m</sup> +6°		A✓
		E	"	E-21	"		A✓
		Seeing got progressively worse → 0					
Nov 23/24	Survey	Seeing 0 to 1 - no plates					



## OBSERVING LOG

DATE	PROGRAM	PLATE	EMULSION	NO'S.	FIELD	REMARKS		
Nov. 24/25	SURVEY	103a-O	420,649	O-22	3 <sup>h</sup> 02 <sup>m</sup> , +24	Seeing - border line	seeing	RAV
		103a-E	423,886	E-22	"		seeing	RAV
		103a-O	420,649	O-23	6 <sup>h</sup> 37 <sup>m</sup> , +13			? RAV
		103a-E	423,886	E-23	<del>8<sup>h</sup> 17<sup>m</sup>, +23</del>			? RAV
		103a-O	420,649	O-24	8 <sup>h</sup> 17 <sup>m</sup> , +23	Declination different on		? RAV
		103a-E	423,886	E-24	"	O-24 and E-24		? RAV
		103a-O	420,649	O-25	9 <sup>h</sup> 37 <sup>m</sup> , +23			RAV
		103a-E	423,886	E-25	"			RAV
Nov. 25/26						Seeing zero		
Nov. 26/27	SURVEY	103a-O	420,649	O-26	6 <sup>h</sup> 47 <sup>m</sup> , +24°	border-line seeing		RAV
		103a-E	423,886	E-26	"			RAV
Nov. 27/28		Cleaned North and South guide telescopes Aimed south guide scope				Seeing sub-standard.		
Nov. 28/29						"	"	
Nov. 29/30		103a-O	420,649	O-27	8 <sup>h</sup> 02 <sup>m</sup> , +6	2 bearings 2 + to 3		RAV
		103a-E	423,886	E-27	"	"	"	RAV
		103a-O	420,649	O-28	9 <sup>h</sup> 12 <sup>m</sup> , +6	"	"	RAV
		103a-E	423,886	E-28	"	"	"	RAV
Dec. 1		103a-E	423,886	E-29	10 <sup>h</sup> 27 <sup>m</sup> , +6	Seeing 0 (Decayed during Rev.)		

Nov. 10-30, 1949.

BLUE PLATES	103A-0	Emulsion No.	420,649
ON HAND	NOV. 10, 1949.	93 boxes of 4 =	372 plates
ON HAND	DEC. 1, 1949	83 boxes of 4 =	332 Plates
		+ 3 plates in box	
			$\Delta_1 = 37$ plates
$A = B + C, B = D + E, D = F + G + H + I$			

~~3 plates~~



Run No. 1

Nov. 10-30, 1949

PLATE LOG

BLUE PLATES 103A-0 EMULSION NO. 420,649

REMARKS

DATE ← C — X — E — X — F — X — G — X — H —→

Nov 11/12

Broken in processing

Nov 12/13

contours - electric spark images

Nov 14/17

Not square, cracked in plate holder  
Broken in processing

Scratches

Nov 17/18

Nov 21/22

plate not square would not fit in plate holder

Nov 25

1 broken in box 1 shattered immediately, 1 at 4 sec

There 3 plates were in box in which spacers were not between plates

Run No. 1

Nov. 10-30, 1949

PLATE LOG

RED PLATES

103a-E

EMULSION No. 423,970

REMARKS

DATE

C

E

F

G

H

Nov. 12

Deficient region (2)  
chips (3) contain (1)  
small piece of glass  
injected in emulsion

Nov. 13

shattered

Nov. 15

Nov. 16

Scratches

Run No. 1 Nov. 10-30, 1949

PLATE LOG

RED PLATES 103a-E EMULSION No. 423, 886

Rec'd via Humason Nov. 12, 1949 4 plates 1 sent to Miller

Rec'd via Kelly Nov. 17, 1949 60 plates

Rec'd via Kelly Nov. 23, 1949 116 plates

180 = 15 doz

ON Hand Dec. 1, 1949, 39 boxes of 4 = 156 Plates

$\Delta_1 = 24$  plates

A = B+C, B = D+E, D = F+G+H+I

Date	Inspection		Pre-Test		Later Defects				No Good
	Total	No. Good	No. Defective	No. Good	No. Breaking	No. Breaking	Bad Emulsion	Other	
	A	B	C	D	E	F	G	H	I
Nov 13	2	2		2					2
Nov 14	1	1		1					1
Nov 17	5	5		5			2		3
Nov 19	5	5		4	1				4
Nov 21	6	6		6			1		5
Nov 23	2	2		2					2
Nov 25	<u>3</u>	<u>3</u>		<u>3</u>					<u>3</u>
$\Delta_2 =$	24	24		23	1		3		20



Run No. 1 Nov. 10-30, 1949

# PLATE LOG

RED PLATES	1034-E	EMULSION No.	423.886
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REMARKS

DATE \_\_\_\_\_

C

五

- F

2

• 15

Nov 17

2 row of white dots

Nov. 23

1	small box; 1/2 plate
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Run No. 1 Nov. 10-30, 1949

PLATE LOG

RED PLATES 103A-E EMULSION No 423,887

Rec'd via Humason Nov 12, 1949 4 plates 1 sent to Miller

Rec'd via Kelly Nov. 17, 1949 108 plates

Rec'd via Kelly Nov. 23, 1949 68 plates

180 = 15 doz

ON Hand Dec. 1, 1949 44 boxes of 4 = 176 Plates

$A = B+C$ ,  $B = D+E$ ,  $D = F+G+H+I$

Date	Inspection			Pre-Test		Later Defects			No. Good
	Total	No. Good	No. Defective	No. Good	No. Breaking	No. Breaking	Bad Emulsion	Other	
	A	B	C	D	E	F	G	H	I
Nov 13	1	1		1					1
Nov 16	1	1		1					1
Nov 17	1	1		1					1
	3	3		3					3



Run No. 1

Nov. 10-30, 1949

PLATE LOG

RED PLATES

103a-E

EMULSION NO. 423,887

REMARKS

DATE

C

E

F

G

H

Run No. 1SUPPLY RECORDS:

ON HAND BEGINNING OF RUN. NOV. 10, 1949:

D-19 61 gal

Hypo 17 gal

Glc. Acetic 7 gal

Nov. 16: To Dr. Baader (200") 2 gal D-19, 2 gal hypo

ON HAND DEC. 1, 1949

D-19 35 GAL.

HYPO 7 GAL.

GLAC. ACETIC 6½ GAL

DIST. WATER 11 GAL.

IN BOX AT 200" DOME AS OF 11-23-49

25

27 BOXES 14 X 14, EMUL. # 423,970 Correct as of Dec. 1, 1949

44

" " " # 887

4

" 6 1/2" 10 X 10 " # I-N

1

" " " " I-2

1

" " " " 10320

Correct as of Dec. 1, 1949

Run No. 1.

Alignment Tests on Nov. 21/22

- 1). With sidereal time set correctly, it was found that  
S.T. & And.

$$\begin{array}{rcl} \text{R.A. (correct)} & = & 0^h 5^m 48^s \\ \text{R.A. dial} & = & 0^h 1^m 26^s \\ & & \underline{4^m 22^s} \end{array}$$

$$\begin{array}{rcl} \text{H.A. correct} & = & 0^h 9^m 12.0 \\ \text{H.A. dial} & = & 0 \quad 13 \quad 34.5 \\ & & \underline{4^m 22.5} \end{array}$$

- i.e. H.A. dial reads  $4^m 22^s$  too great  
R.A. dial reads  $4^m 22^s$  too small with S.T. correct.  
(by side crank)

$\therefore$  If R.A. dial is corrected by adding  $4^m 22^s$ , S.T. is  
then  $4^m 22^s$  too great, and H.A. is too great.  
 $d = S - h$        $S$  too large  
                          $h$  too large

Correct all cards by subtracting  $4^m 22^s$   
from S.T. and H.A.

On cards write down PST 16:12:00  
and S.T. 22:15:37  
H.A. to nearest minute.

2. Alignment of Schmidt optical axis with north guide scope.

Star centered in north guide scope is displaced  
 $3'.56 \text{ arc} = 3.18 \text{ mm}$  (on plate) to east of center  
 $1'.99 = 1.77 \text{ mm}$  to north of center.

Guide scope was corrected by shifting offset zero  
position so that scope axis moved  $3\frac{1}{2} \text{ mm}$  west  
2 mm north.

Nov. 21, 1949

North range  
changed in  
cleaning

On all Survey plates 0-1, E-1 to 0-19, E-19  
the card 4, 5 is  $3.18 \text{ mm}$  east of center  
 $1.77 \text{ mm}$  north of center

Note - offset guide  
star not at  
cross hairs. To  
also corrected by  
using telescope.



Shipping List:

Plates Received Dec 1.

Obs.	Lat	Long	Date	Time	Remarks
DX 1	1 <sup>h</sup> 36 <sup>m</sup>	+18°	0-7	E-6	✓ Accepted by Beade + Mink.
	3 <sup>h</sup> 12 <sup>m</sup>	+12°	0-12	E-11	✓ " " "
	1 <sup>h</sup> 36 <sup>m</sup>	+12°	0-15	E-14	✓ " " "
	2 <sup>h</sup> 48 <sup>m</sup>	+12°	0-16	E-15	✓ " " "
	7 <sup>h</sup> 36 <sup>m</sup>	+12°	0-19	E-18	✗ Accepted by Beade only
	1 <sup>h</sup> 36 <sup>m</sup>	+6°	0-21	E-21	✓ Accepted by Beade + Mink.
DX 2	6 <sup>h</sup> 30 <sup>m</sup>	+24°	0-23	E-23	✓ Accepted by Minkowski only
	9 <sup>h</sup> 32 <sup>m</sup>	+24°	0-25	E-25	✓ " " "

Rum No. 1

# A. Plate Summary

Emulsion No.	420,649	423,886,	423,887,	423,970	$\Sigma$
Total Used A	37	24	3	11	75
C+E	4	1	0	1	
Good D	33	23	3	10	
Exposed (Obs. Log)	30 <sup>2 not square</sup> <sub>1 in I.B.</sub>	22	3	10	65
F+G+H	6	3	0	5	
Good I	23	20	3	5	
Test	7	3	1	7	18
Survey	23	19	2	3	47
Accepted (Test)					
Accepted (Final)					

Checks:  $A = C + D + E$

Exposed = D - (give reason)

$I = D - (F + G + H)$

Test + Survey = exposed.

$\Sigma \text{ red} = \Sigma \text{ blue on Survey}$

N.B. one extra red exposed.

## B. Time Summary

Total Number of Nights: 21

Total Number clear Nights: 16

Nights with sub-standard seeing: 10

Good Nights: 6

Good nights lost for tests: 3

Good nights for survey: 3



Rum No. 2

# OBSERVING SCHEDULE

48" SURVEY

DEC. 8-22, 1949

E = end of evening twilight  
D = beginning of morning twilight  
M<sub>s</sub> = moonset  
M<sub>r</sub> = moonrise

Date	Start	Stop	Hours	No. of Sta.	Observer	Remarks
Dec. 8	—	—			Wi	storm
9	E 6:25	M 8:22			"	storm
10	6:25	9:29			"	Seeing 0
11	6:26	10:36			"	Seeing 1-
12	6:26	11:43			"	Seeing 1-
13	6:26	0:50			"	Seeing 1-
14	6:27	1:59			"	Seeing 0
15	6:27	3:10			" Ha	storm
16	6:28	4:25			" "	storm
17	6:28	D 5:24			" "	storm
18	6:28	5:25			" "	storm
19	6:28	5:25			" "	storm
20	6:28	5:26			" "	Seeing 0
21	M 6:49	5:27		2	" "	Seeing drops to 0
22	—	—			—	
13 nights						
Jan 9						

RUN No. 2

DEC. 8-22, 1949

A = accept  
R = reject  
c = card  
V = final accept

OBSERVING LOG

Date	Program	plate	Emulsion	No's	Field	Remarks		
Dec 8/9		No	Observations	-	storm			
Dec 9/10		No	Observations	-	storm			
Dec 10/11		No	Observations	-	Seeing 0			
Dec 11/12		No	Observations	-	Seeing 1-			
Dec 12/13		No	Observations	-	Seeing 1-			
Dec 13/14		No	Observations	-	Seeing 1-			
Dec 14/15	Experimental	351	10x10	103a-E	M33	Seeing 0		
Dec 15/16		No	Observations	-	storm			
Dec 16/17		No	Observations	-	storm			
Dec 17/18		No	Observations	-	storm			
Dec 18/19		No	Observations	-	storm			
Dec 19/20		No	Observations	-	storm			
Dec 20/21		No	Observations	-	Seeing 0			
Dec 21/22	Survey	103a-O	420,649	O-30	1 <sup>h</sup> 18 <sup>m</sup> , +30°			A ✓ c
		103a-E	423,886	E-30	" "			A ✓ c
		103a-O	420,649	O-31	3 <sup>h</sup> 54 <sup>m</sup> +24°			A ✓ c
		103a-E	423,886	E-31	" "			A ✓ c

Run No. 2

Dec. 8-22, 1949

# PLATE LOG

BLUE PLATES: 103a-0 Emulsion No. 420,649  
 ON HAND DEC. 8, 1949 83 boxes + 3 in a box + 1 tested  
 \* retested

$$A = B + C, B = D + E, D = F + G + H + I$$

Date	Total	Inspection		Pre-Test		Later Defects			Good
		Number Good	Defective	Good	Breaking	Breaking	bad emulsions	other	
	A	B	C	D	E	F	G	H	I
Dec 9	2*	2	0	2	0				2
Dec 10	2	2	0	2	0				
Dec 12	2	2	0	2	0				

## REMARKS

DATE ← C — \* — E — \* — F — \* — G — \* — H →

RUN No. 2

DEC. 8-22, 1949

PLATE LOG

RED PLATES: 103a-E EMULSION NO. 423,886  
ON HAND DEC 8, 1949. 39 boxes of 4 = 156 plates

A = B+C, B = D+E, D = F+G+H+I

Date	Inspection			Pre-Test		Later Defects			Good
	Total	Good	Defective	Good	Breaking	Breaking	Bad Emulsion	Other	
	A	B	C	D	E	F	G	H	I
Dec 9	2	2	0	2	0				2
Dec 10	2	2	0	2	0				
Dec 12	2	2	0	2	0				

REMARKS

DATE ← C — X — E — X — F — X — G — X — H →



## Run No. 2

### Supply Records:

On hand beginning of run Dec. 8, 1949

D-19 34  $\frac{3}{4}$  gal  
Hypo 7 gal + 1 new tank  
Glac. Acetic Acid 6  $\frac{1}{4}$  gal  
Dist. Water 12 gal  
Plates: 103a-0 = 83 boxes + 3 + ① = 226 <sup>tested</sup>  
423,886 103a-E = 39 boxes = 156

4 gallons of developer to 200" (Hymaron) Dec. 8.

Received Dec. 15.

36 gal. of developer  
20 gal. of hypo

Inventory Dec. 21:

Plates 103a-0  
81 unopened + 6 + 4 tested

Plates 103a-E  
36 unopened, 6 plates + 4 tested

Hypo  
27 gal -  $\frac{1}{3}$   
26  $\frac{2}{3}$  gal

Acetic Acid  
6 gal to warehouse

Developer  
65 -  $1\frac{1}{2}$   
= 63  $\frac{1}{2}$  gal

Plate status: In Ice Box

328

103a-0

82 unopened, 1 box with 2

103a-E

37 unopened, 1 box with 2

148

also wood boxes 4 blue and 4 red

Totals:

103a-0

224

, 103a-E

154.



# Shipping Records:

To Pasadena Via Kelly Dec. 15

Box No. 4.

Box No. 3

Rejects

Survey

XO-10

XE-9

XO-14

XE-13

O-20

E-20

XO-6

XE-5

XO-3

XE-2

XO-2

XE-1

E-28

O-28

E-27

O-27

Box No. 5

Box No. 6.

To Pasadena Dec 22

Rejects

Rejects

Survey

XO-11

XE-10

XO-4

XE-3

O-22

E-22

XO-8

XE-7

XO-5

XE-4

XO-13

XE-12

XE-16

XO-17

O-26

E-26

XO-18

XE-17

XO-9

XE-8

O-30

E-30

O-31

E-31

## Run No. 2. Summary

### A. Plate Summary:

Emulsion No.	420,649	423,886
Total Used A	6	6
C+E	0	0
Good D	6	6
Exposed (Obs. Log)	2	2
F+G+H	0	0
Good I	2	2
Test	0	0
Survey	2	2
Accepted (Test)		
Accepted (final)		

[ 4 tested of each in wooden boxes ]

### B. Time Summary:

Total Number of Nights : 14  
 Total Number of clear Nights 7  
 Nights with submergence  $6\frac{3}{4}$   
 Good nights  $\frac{1}{4}$

RUN No. 3

JAN. 9-25, 1950

A = accept  
R = reject  
C = card  
V = final accept

OBSERVING LOG

Date	Program	PLATE	EMULSION	No.	FIELD	REMARKS		
Jan 9/10	Survey	No Observations				Seeing sub-standard		
" 10/11	"	103a-O	420649	O-32	5 <sup>h</sup> 36 <sup>m</sup> , +6°	Seeing borderline	R	C
		103a-E	423886	E-32	"		R	C
		103a-O	420649	O-33	7 <sup>h</sup> 12 <sup>m</sup> , +6°		R	C
		103a-E	423886	E-33	"		R	C
		103a-O	420649	O-34	8 <sup>h</sup> 48 <sup>m</sup> , +6°		R	C
		103a-E	423886	E-34	"		R	C
		103a-O	420649	O-35	10 <sup>h</sup> 16 <sup>m</sup> , +36°		R	C
		103a-E	423886	E-35	"		R	C
JAN. 11/12		No Observations				Storm		
Jan 12/13		No observations				Storm		
Jan 13/14	Survey	"				"		
Jan 14/15	"	"				"		
Jan 15/16	Survey	103a-O	420,649	O-36	10 <sup>h</sup> 24 <sup>m</sup> , +30°	Seeing borderline, - thin haze	R	C
		103a-E	423,886	E-36	"	"	R	C
Jan 16/17	"	No observations				Seeing O-2		
Jan 17/18	Survey	103a-O	420,649	O-37	3 <sup>h</sup> 54 <sup>m</sup> , +30°		R	C
	"	103a-E	423,886	E-37	"		R	C
	"	103a-O	420,649	O-38	5 <sup>h</sup> 38 <sup>m</sup> , +30°		R	C
	"	103a-E	423,886	E-38	"		R	C
	"	103a-O	420,649	O-39	6 <sup>h</sup> 56 <sup>m</sup> , +30°		R	C
	"	103a-E	423,886	E-39	"		R	C
Jan 18/19		No Observations				Clouds		
Jan 19/20		No Observation				"		
Jan 20/21		No Observations				"		
Jan 21/22		No Observations				"		
Jan 22/23	Comet	103a-E	421,276	C-3	4 <sup>h</sup> 8 <sup>m</sup> , +20°	30mm Moon, Seeing < 1		
	Comet	103a-E	"	C-4	"	10mm " "		
Jan 23/24		No Observation				High wind & clouds		
Jan 24/25		No Observations				Storm		
Jan 25/26	Comet Her209	103a-E	423,970	C-5	8 <sup>h</sup> 10 <sup>m</sup> , -26°	Seeing 0, 10mm.		



RUN No. 3

JAN. 9-25, 1950

PLATE LOG

BLUE PLATES: 103A-0 EMULSION No. 420,649

ON HAND, JAN 9, 1950 - 82 Boxes of 4 = 328 + 6 = 334 Plates

END OF RUN, JAN 26, 1950, - 79 boxes - = 316 + 9 tested = 325

A = B+C, B = D+E, D = F+G+H+I

Used 4 plates  
8 good 1 bad

Date	Inspection			Pre Test		Later Defects			Good
	Total	Number Good	Defective	Good	Breaking	Breaking	Bad Emulsion	other	
	A	B	C	D	E	F	G	H	I
1/12/50	6	5	1	5	0				5
1/15/50	4	4	0	4	0		2		2
1/18/50	4	4	0	4	0				2

2 carried over

REMARKS

DATE	C	E	G	H
1/2/50	Plate broken in box			
1/50			spotted	

RUN No. 3

JAN 9-25, 1950

PLATE LOG

RED PLATES: 103a-E EMULSION NO. 423,886

ON HAND JAN 9, 1950 - 37 boxes of 4 = 148 + 6 = 154 Plates

End of Run Jan 25, 1950 34 boxes + 10 tested = 146

A = B+C, B = D+E, D = F+G+H+I

8 plates used

Date	Total A	Inspection		Pre-Test		Later Defects			Good I
		Good B	Defective C	Good D	Breaking E	Breaking F	Bad Emulsion G	Other H	
1-12-50	6	6	0	6	0				6
1/15/50	4	4	0	4	0				4
1/18/50	4	4	0	4	0				1

10 carried over

REMARKS

Date ← C — \* — E — \* — F — \* — G — \* — H →

Run No. 3

Jan. 9-25, 1950

PLATE LOG

RED PLATES 103a-E 423,970  
ON HAND (200" DOME) JAN DEC 1, 1949. 25 boxes of 4 = 100 plates  
1 box to 48" Jan 25, 1950.

End of run 24 boxes + 3 plates

A = B+C, B = D+E, D = F+G+H+I

Date	A Total	INSPECTION		Pre Test		Later Defects			I Good
		B Number Good	C Defective	D Good	E Breaking	F Breaking	G Bad Emulsion	H Other	
1/25/50	1		1	1					1

REMARKS

DATE	C	E	F	G	H
1/25/50	Corner chipped				



RUN No. 3

## SUPPLY RECORDS

ON HAND beginning of run: Jan 9, 1950

D-19	62 $\frac{2}{3}$ GAL.			
Hypo	16 "			
Glac. Acetic Acid	6 "			
Dist. Water	10 "			
Plates:	103a-O 420,649	unopened 328	opened 2	tested 4
	103a-E 423,886	148	2	4

1 GAL. D-19 } TO 200" DOME 1-10-50  
1 " HYPO }

4 gal D-19 to 18" Dome 1-16-50

1 box 423,970 removed from 200" dome 1-25-50

ON HAND END OF RUN: JAN 26, 1950

Plates 103a-O	420,649	
Unopened boxes in refrigerator		
Tested plates in loading room		9
Total		

Plates 103a-E	423,886	
Unopened boxes in refrigerator	3414	136
Tested plates in loading room		10
Total		146

Plates 103a-E 423,970 3 in ref. other in 200" dome

Hypo 22 gal, D-19 51 gal, Acetic Acid 6 gal  
Dist. water 10 gal

Run No. 3. Shipping List

Down with Kelley

Box No. 1.

Box No. 2

Jan 23

Plate E, O 22

Plate E, O 37

32

38

33

39

34

35

Filters No 7 & 8  
down

36

Box No. 3.

Down with Kelley

Jan 26.

plates C-3

C-4

# RUN No. 3 Summary

## A. Plate Summary:

Emulsion	420,644	423,886
Total <sup>4</sup> / <sub>5</sub> Layer tested	14	14
C+E	1	0
Good 0	13	14
Exposed (Obs log)	8	8
F+G+H	0	0
Good I	4	4
Test	0	0
Survey	8	8
Accepted (Tent.)		
Accepted (Final)		

IV wooden boxes 9

10

## B Time Summary

Total No. of Nights	17
No. of clear nights	7
Nights with substandard seeing	6
No. of good nights	1/2



Run No. 4.

# OBSERVING SCHEDULE 48" SURVEY

FEB. 6 - 23, 1950

E = end of evening  
twilight  
D = beginning of morning  
twilight  
Ms = moon set  
Mr = moon rise

	Date	Start Work	Stop Work	Hours	No. of Pair	Observers	Remarks
Feb.	6/7	E 19:00	Mr 21:41	No Observations		Ha	Storm (rain)
	7	19:01	22:45		✓	"	Sub-stel. seeing - mist
	8	19:02	23:53		✓	"	Clouds - Haze
	9	19:04	1:01		✓	"	Cloudy
	10	19:05	2:15		✓	"	Storm (rain)
	11	19:06	3:20		✓	"	Sub-stel. seeing (zero)
	12	19:07	4:25		✓	"	Sub-stel. seeing (zero)
	13	19:08	D 5:20		1	" Wi	local seeing < 2 <sup>3+</sup> <sub>3+</sub>
	14	19:09	5:20		0	" "	" 3+
	15	19:10	5:19		0	" "	" 3+
	16	19:11	5:18		1	"	Seeing 1-5
	17	19:11	5:18		4	"	Seeing 1-3
	18	Ms 19:25	5:17		0	"	Overcast
	19	20:20	5:16		4	"	Seeing 2-4
	20	21:15	5:16		0	"	Seeing 1-2
	21	22:13	5:15		0	"	Seeing 0-2
	22/23	23:10	5:14		0	"	Seeing 0-2
	17 Nights				10 pair		
Mar.	6/7	E 19:25	Mr 20:34		Wi 6 - 20		
					Ha 13 - 27		
Mar	26/27	Ms 1:45	D 4:25				

Run No. 4

FEB 6 - 23, 1950

OBSERVING LOG

A = accept  
R = reject  
c = card  
v = final

Date	Program	Plate	Emulsion	No.	Field	Remarks	
Feb. 6/7	Survey	No observations				Storm (rain)	
" 7/8	"	"				Sub-std. seeing - mist	
" 8/9	"	"				Cloudy - haze	
" 9/10	"	"				Cloudy	
" 10/11	"	"				Storm - (rain)	
" 11/12	"	"				Sub-std. seeing - 0 to 0+	
" 12/13	"	"				" " 0 to 1	
6. 12	Comet Boyes	103a-E	423,870	C-6	28 <sup>h</sup> 12 <sup>m</sup> S-26°	Seeing 0 to 1	
6 13/14	Survey	103a-0	420,649	O-40	6 <sup>h</sup> 32 <sup>m</sup> +36°	focus poor seeing	R <sup>v</sup> c
	"	103a-E	423,886	E-40	" "	poor seeing	R <sup>v</sup> c
6 14/15	No Observations						
	Focus	103a-0	428,441	F-1	Blue Plate Holder	Cooling Run	
6 15/16	No Observations					Cooling Run	
Feb 16/17	Focus	103a-0	428,441	F-2	Blue Plate Holder	Cooling Run	
	"	"	"	F-3	Red Plate Holder		
	"	103a-0	420,649	F-4	Blue Plate Holder	0.125 out	
	"	103a-E	423,886	F-5	Filter No 14	0.725 out	
	Survey	103a-0	420,649	O-41	12 <sup>h</sup> 48 <sup>m</sup> +12°	scratch	A <sup>v</sup> c
	"	103a-E	423,886	E-41	" "		A <sup>v</sup> c
6 17/18	Focus	103a-0	420,649	F-6	Blue Plate Holder		
		103a-0	"	F-7	Red Plate Holder		
	Survey	103a-0	420,649	O-42	7 <sup>h</sup> 22 <sup>m</sup> +24°	Defective emulsion, light leaks, seeing	R <sup>v</sup> c
		103a-E	423,886	E-42	" "	contours " " seeing	R <sup>v</sup> c
		103a-0	420,649	O-43	9 <sup>h</sup> 12 <sup>m</sup> +12°	Defective emulsion, light leaks, seeing, contours	R <sup>v</sup> c
		103a-E	423,886	E-43	" "	light streaks	R <sup>v</sup> c
		103a-0	420,649	O-44	10 <sup>h</sup> 24 <sup>m</sup> +12°		R <sup>v</sup> c
		103a-E	423,886	E-44	" "		R <sup>v</sup> c
		103a-0	420,649	O-45	14 <sup>h</sup> 0 <sup>m</sup> +12°		R <sup>v</sup> c
		103a-E	423,886	E-45	" "		R <sup>v</sup> c
6 18/19	Survey	No Observations				Overcast	
Feb 19/20	Survey	103a-0	420,649	O-46	9 <sup>h</sup> 36 <sup>m</sup> +12°		R <sup>v</sup> c
		103a-E	423,886	E-46	" "		R <sup>v</sup> c
		103a-0	420,649	O-47	10 <sup>h</sup> 48 <sup>m</sup> +12°		R <sup>v</sup> c
		103a-E	423,886	E-47	" "		R <sup>v</sup> c

# Run No 4.

2.

A = accept  
R = reject  
C = card  
V = final

## OBSERVING LOG

Date	Program	Plate	Emulsion	No.	$\alpha$	$\delta$	REMARKS	
Feb 19/20	Survey	103a-0	420,649	O-48	12 <sup>h</sup> 48 <sup>m</sup>	+18°	—	RV <sup>c</sup>
		103a-E	423,886	E-48	"	"	emulsion defects	RV <sup>c</sup>
		103a-0	420,649	O-49	14 <sup>h</sup> 24 <sup>m</sup>	-18°	Off-axis, poor seeing.	RV <sup>c</sup>
		103a-E	423,970	E-49	"	"	" " Contour drying 970 dark	RV <sup>c</sup>
Feb 20/21	Survey	No	Observations				seeing 0-2	
Feb 21/22	Survey	No	Observations				" "	
Feb 22/23	Survey	PS 352	Strömgren				, Galactic Pole	
		PS 353	"				" "	
		PS 354	"				Schwassman-Wachman Comet	



RUN No. 4

Feb 6-23, 1950

PLATE LOG

BLUE PLATES 103a-0 Emulsion No. 420,649  
ON HAND Feb. 6, 1950 79 boxes = 316 + 7 tested = 325 plates

END OF RUN 76 boxes + 15 tested = 308  
17 ~~48~~ plates

A = G+C, B = D+E, D = F+G+H+I

Used (from Log) 185  
broken 2  
17

Date	INSPECTION			PRE TEST		LATER DEFECTS			
	Total	Number Good	Defective	Good	Breaking	Breaking	Bad Emulsions	other	Good
	A	B	C	D	E	F	G	H	I
Feb 19	4	4	0	4	0				4
Feb 20	8	7	1	6	1				5

REMARKS

DATE ← C — \* — E — \* — F — \* — G — \* — H —  
Feb 20 3" corner cracked off in ~~box~~. Broke after 74 sec

RUN No. 4

Feb 6 - 23, 1950

PLATE LOG

RED PLATES: 103a-E EMULSION NO. 423886  
ON HAND FEBRUARY 6, 1950: 34 boxes + 10 tested = 146 plates

END OF RUN 34 boxes = 136  
10 plates used ✓  
A = D + C, B = D + E, D = F + G + H + I by box 10 used ✓

Date	Total A	Inspection		Pre-Test		Later Defects			Good I
		Good B	Defective C	Good D	Breaking E	Breaking F	Bad Emulsion G	Other H	

REMARKS

Date ← C — \* — E — \* — F — \* — G — \* — H →

RUN No. 4

FEB 6-23, 1950

PLATE LOG

RED PLATES 103a-E Emulsion No. 423,970  
ON HAND FEB 6, 1950 24x4 + 3 = 99 plates

END OF RUN 20 (200" dome) + 3 boxes + 3 plates = 95 ~~48~~ plates

Based by log ✓

A = B+C, B = D+E, D = F+G+H+I

# used ✓ inc. one for Miller

DATE	INSPECTION			PRE TEST		BREAKING	LATER DEFECTS		GOOD
	TOTAL	NUMBER GOOD	DEFECTIVE	GOOD	BREAKING		BAD EMULSION	OTHER	
	A	B	C	D	E	F	G	H	I
Feb 12	1	1	0	1	0				1
Feb 19	2	2	0	2	0				2
Feb 20	4	4	0	4	0				4

REMARKS

DATE ← C — \* — E — \* — F — \* — G — \* — H — →



## Seeing Tests

Feb 14/15, 1950

[illegible]

Feb 16/17

## Seeing Tests

.125

Zero focus = 0.125 out

Red filter #14

Temp.

0.725

## Seeing

	$\delta$	200"	48"	H. A.	$\delta$	Time.	Dome	O. R.	Outside	Azimuth	Wind
SW +29	3-4	<sup>Capeella</sup> 3 67	0 <sup>1</sup>	+45°	7:00 P.M.	54°	56°			N by E	N
OW +30	4-5	4 0 <sup>cc</sup> <sub>6</sub>	15" W	+2°	8:00 P.M.	52°	56°	47°		S	N
W +30	2	2 0 <sup>cc</sup> <sub>3</sub>	40" E	+28°	9:00 P.M.	51 1/2°	56°	46°		ESE	N
-	3	5-	<del>30" E</del>	+12°	10:00 P.M.	"	56°	48°		SSE	N
NE +29	3	3-6	1" E	+12°	11:00 P.M.	51 1/2°	56°	48 1/2°		SE	N
NE -18	2-3	2+	30" E	+2°	12:00 P.M.	57°	56°	49°		S	N
		3-6	30" E	+20°	1:00 A.M.	50°	56°	47°		S	N
NE -18	1-2	2	1" E	+11°	2:00 A.M.	49°	56°	46°		S	N
NE +400	2-3	3	1 1/5" E	+20°	3:00 A.M.	50°	50°	46°		SE	N
" "	3	3-4	0 <sup>1</sup>	+20°	4:00	50°	68	-		S	N

Heat switches turned on ~~2:00~~ 2:30

## Results of Focus Tests:

Blue plate holder 0.125 out  
 Red plate holder 0.125 out  
 Filter No. 14 0.725 out

Use Wind Screen  
 Seal Door.

Run No. 4

## SUPPLY RECORDS

ON HAND Beginning of Run: Feb 6, 1950:

D-19 51 gal.  
 Hypo 22 "  
 Glac. Acetic Acid. 6 gal.  
 Dist. Water 10 "

			unopened	opened	tested	
Plates:	103a-O	420,649	316		9	= 325
	103a-E	423,886	136		10	= 146
	103a-E	423,887	176			
	103a-E	423,970	96	3		= 99 total

February 14: 4 gal D-19 } to 200" Dome  
 2 gal Hypo }

February 15: 2 gal D-19 to 18" Dome

In 48" Dome  
 Feb 12: 4 unopened boxes 423,970  
 Feb 14: 2 boxes 428,441  
 2 boxes 428,442

In 200" Dome Feb  
 20 boxes of 970  
 unpacked  
 unpacked

## Closing Inventory

200" Dome 20 boxes 423,970  
 (Temp 43°F) 44 boxes 423,887  
 6 boxes 10 x 10

		unopened	opened	Total
48" Dome	420,649	76 boxes	40 plates	308
(Temp 8°C)	423,886	34 boxes		136
	423,970	3 boxes	30 plates	15
	428,442 rld	8 plates		8
	428,441 bld	4 plates		4

D-19 35 1/2 gal  
 Hypo 21 gal  
 Glac. Acetic Acid 6 gal

# SHIPPING RECORD

FEB 23<sup>rd</sup> Via KELLY

Box No. 1.

O, E 40

41

42

43

44

45

Box No. 2.

O, E. 46

47

48

49



Run No. 4.

Summary:

A. Plate Summary

	420,649		423,970
Emulsion	<del>425,970</del>	423,886	<del>420,649</del>
Total Used	17	10	4
C+E	2	0	0
Good D	15		
Exposed (Obs. Log)	15		
F+G+H	0		
Good I			
Test	-		
Survey			
Accepted (Tent)			
Accepted (Final)			

B Time Summary

Total Number of Nights	17
Number of Clear Nights	12
Nights with Substandard Seeing	9
Number of Good Nights	3

Run No. 5

OBSERVING SCHEDULE  
48" SURVEY

Mar 9-27, 1950

E = end of evening twilight  
D = beginning of morning twilight  
Ms = moon set  
Mr = moon rise

	Date	Start Work	Stop Work	Hours	No. of Pair	Observer	Remarks
Mar	8/9	E 7:26	Mr 10:50				
	9/10	7:27	12:00		0	Wi, M	Overcast / clearing with 0-1
	10/11	7:28	1:11		0	" "	C Seeing 0-1
	11/12	7:29	2:14		0	" "	C " " (return)
	12	7:30	3:09		0	" "	C Seeing 0-1
	13	7:30	3:55		0	" Ha	overcast. Seeing 3
	14	7:31	4:35		0	" "	C Seeing 1-2+
	15	7:32	D 4:45		0	" "	Seeing 2-3, Clouds
	16	7:33	4:44		6	" "	C Seeing 2-3+ clear
	17	7:34	4:43		0	" "	cloudy - Seeing 0-2
	18	7:35	4:42		0	" "	Bright Aurora clouds - Seeing 1-3+
	19	7:36	4:41		0	" "	clouds - Seeing 0-1+
	20	Ms 7:59	4:40		6	" "	C Seeing 2-4
	21	8:54	4:39		2	" "	Ck Seeing 3-4, Clouds
	22	9:50	4:38		0	" "	Clouds, Seeing 0-1
	23	10:47	4:37		0	" "	Seeing 0-1
	24	11:30	4:36		0	" "	Storm
	25	12:40	4:35		0	" "	Storm
	26/27	1:35	4:34		0	" "	Storm
	18				14		
April	6/7	Thur E 7:45	Mr 11:14			Ha	6-20
						Wi	13-27
April	26/27	Thur Ms 1:54	D 3:45				

# Run No. 5

MARCH 9-27, 1950

## OBSERVING LOG

A = accept  
R = reject  
C = card  
V = Final

Date	Program	Plate	Emulsion	No.	Field	REMARKS	
Mar. 9/10			No Observations			Overcast / seeing zero	
Mar. 10/11			No Observations			Seeing 0-1	
Mar 11/12			No Observations			Seeing 0-1	
Mar 12/13	Tests	F-1	103a-0		Focus plate - red plate holder	Seeing 0-1	
Mar 13/14	Tests	F-2	103a-0		" " " "	Seeing 3	
		F-3	103a-E	Filter 17	Overcast	"	
Mar 14/15	Tests	P-1	Pluto	Dr. Kuiper		Seeing 1-2+	
		F-4	103a-0		Focus plate - Blue plate holder		
		F-5	103a-E		Declination Test on Focus		
		F-6	103a-E		Focus plate - Filter 16		
Mar 15/16		F-7	103a-0		Blue Plate Holder, Focus plate		
Mar. 16/17	Survey	103a-0	420,649	0-50	8 <sup>h</sup> 24 <sup>m</sup> +18°	Seeing 2-3+	RA <sup>✓</sup> c
		103a-E	423,970	E-50	<del>11<sup>h</sup> 12<sup>m</sup></del> " "	emulsion streaks	RA <sup>✓</sup> c
		103a-0	420,649	0-51	11 <sup>h</sup> 12 <sup>m</sup> " "		A <sup>✓</sup> c
		103a-E	423,970	E-51	" " " "	emulsion streaks	A <sup>✓</sup> c
		103a-0	420,649	0-52	12 <sup>h</sup> 24 <sup>m</sup> " "		A <sup>✓</sup> c
		103a-E	423,970	E-52	" " " "	emulsion streaks	A <sup>✓</sup> c
		103a-0	420,649	0-53	13 <sup>h</sup> 36 <sup>m</sup> " "	haze?	R <sup>✓</sup> c
		103a-E	423,970	E-53	" " " "	emulsion or backing streaks	R <sup>✓</sup> c
		103a-0	420,649	0-54	14 <sup>h</sup> 48 <sup>m</sup> " "	emulsion defects	A <sup>✓</sup> c
		103a-E	423,970	E-54	" " " "		A <sup>✓</sup> c
		103a-0	420,649	0-55	16 <sup>h</sup> 24 <sup>m</sup> " "		A <sup>✓</sup> c
		103a-E	423,970	E-55	" " " "		A <sup>✓</sup> c
Mar 17/18	Survey	No Observations - clouds - seeing 0-2					
Mar 18/19	"	No Observations - clouds - seeing 1-3+, bright aurora					
Mar 19/20	<del>Survey</del>	103a-0	420,649	PS 355	S.N. for Zwicky	Seeing 0-1	
Mar 20/21	Survey	103a-E	423,970	E-56	5 <sup>h</sup> 36 <sup>m</sup> -6°	Seeing 2-4	RA <sup>✓</sup> c
		103a-0	420,649	0-56	" " " "		RA <sup>✓</sup> c
		103a-0	420,649	0-57	9 <sup>h</sup> 12 <sup>m</sup> +18°		A <sup>✓</sup> c
		103a-E	423,970	E-57	" " " "		A <sup>✓</sup> c
		103a-E	423,970	E-58	10 <sup>h</sup> 24 <sup>m</sup> +18°		A <sup>✓</sup> c
		103a-0	420,649	0-58	" " " "		A <sup>✓</sup> c
		103a-0	420,649	0-59	11 <sup>h</sup> 24 <sup>m</sup> +54°		A <sup>✓</sup> c
		103a-E	423,970	E-59	" " " "		A <sup>✓</sup> c
		103a-E	423,970	E-60	13 <sup>h</sup> 0 <sup>m</sup> +30°		R <sup>✓</sup> c
		103a-0	420,649	0-60	" " " "	B.P. Emulsion defects	R <sup>✓</sup> c

A=accept  
R=reject  
C=card  
✓=final

Date	Program	Plate	Emulsion	No.	Field		Remarks	
Mar 20/21	Survey	103a-0	420,649	0-61	14 <sup>h</sup> 18 <sup>m</sup>	+24°		A ✓ c
	"	103a-E	423,970	E-61	"	"		A ✓ c
	Test	103a-0	428,441	PS 356	14 <sup>h</sup> 30 <sup>m</sup>	+31°	non-survey Beaties Cluster	
Mar 21/22	Survey	103a-0	420,649	0-62	8 <sup>h</sup> 48 <sup>m</sup>	+18°		A ✓ c
		103a-E	423,970	E-62	"	"		A ✓ c
		103a-E	423,970	E-63	10 <sup>h</sup> 0 <sup>m</sup>	+18°	clouds	R ✓ c
		103a-0	420,649	0-63	"	"	"	R ✓ c
Mar 22/23	Survey	No observations			—	—	Clouds - seeing 0-1	—
Mar. 23/24	"	"	"	—	—	—	Seeing 0-1	
24/25	"	"	"	—	—	—	Storm	
25/26	"	"	"	—	—	—	Storm	
26/27	"	"	"	—	—	—	Storm	



Run No. 5.

Mar. 9-27, 1950

PLATE LOG

BLUE PLATES 103a-0 Emulsion No. 420,649  
 ON HAND MAR. 1950 76 boxes + 4 tested = 308  
 END OF RUN: 70 boxes + 2 in opened box + 3 tested = 285  
 diff = 23 plates  
 $A = B + C, B = D + E, D = F + G + H + I$   
 14 survey + 3 focus + PJ355 + A1  
 + 4 breaking = 23

DATE	INSPECTION			PRE-TEST		LATER DEFECTS			Good
	TOTAL	Number Good	Defective	Good	Breaking	Breaking	Bad Emulsion	other	
	A	B	C	D	E	F	G	H	I
Mar 16	8	7	1	6	1				6
Mar 20	7	7	0	6	1		1		5
Mar 21	5	5	0	4	1	1			3
23	2	2	0	2	0				

REMARKS

DATE ← C — \* — E — \* — F — \* — G — \* — H →

Mar 16 Corner chipped off 70 sec.

Broken by accident after testing

large light spot

RUN No. 5

MAR. 9-27, 1950

PLATE LOG

RED PLATES	103a-E	EMULSION No.	423 970
ON HAND MAR,	1950	3 boxes + 3 tested + 20 in 200' down =	75
END OF RUN		8 boxes + 3 in open box + 3 tested + 10 boxes in 200' down =	78
		14 survey + 3 focus =	17 used
A = B+C, B = D+E, D = F+G+H+I			

DATE	INSPECTION			PRE-TEST		LATER DEFECTS			
	TOTAL	Number Good	Defective	Good	Breaking	Breaking	Bad Emulsion	Other	GOOD
	A	B	C	D	E	F	G	H	I
Mar 16	6	6	0	6	0		4		2
Mar 20	6	6	0	6	0				6
Mar 21	5	5	0	5	0				

REMARKS

DATE ← C — X — E — X — F — X — G — X — H — →

stipes on 4 emulsion

# Shipping Record

Box No. 1.

O-50

E-50

O-51

E-51

O-52

E-52

O-53

E-53

O-54

E-54

O-55

E-55

Box No. 2

O-56

E-56

O-57

E-57

O-58

E-58

O-59

E-59

O-60

E-60

O-61

E-61

To Pasadena

Thursday, March 23, 1950

via Kelly

Box No. 3. O-62

E-62

O-63

E-63

# Run No. 5 Supply Records

ON HAND: BEGINNING OF RUN: MAR. 9, 1950

D-19 65 1/3 gal = 35 1/3 + 30 rec'd  
 \* NB. Naccifix 37 gal = 20 gal rec'd + 17 on hand  
 Part Naccifix Glacial Acetic Acid 6 gal 4 gal missing  
 Part Concentrate Distilled Water 9 gal

Plates			unopened	opened	Total
103a-0	420,649	76 boxes	4 plates		308
103a-E	423,886	34 boxes			136
103a-E	423,970	36 boxes	+ 3 plates	20 boxes, 200" dom	95
103a-E	423,887			44 boxes, 200" dom	176
103a-0	428,441	1 box		unopened 200" dom	
103a-E	428,442	2 boxes		" "	

Mar. 10: to 200" and 18" Domes  
 8 gal D-19  
 4 gal Naccifix

Mar 17 10 boxes, 423,970 from 200"

On hand: End of Run.

D-19 45 gal  
 Naccifix 12 gal  
 Naccifix Concentrate 16 gal  
 Glacial Acetic Acid 5 1/2 gal  
 Distilled Water 7 gal

Plates			unopened	opened	tested	Total
103a-0	420,649	70 boxes	2 pl	3 pl		285
103a-E	423,886	34 boxes				136
103a-E	423,970	18 boxes	3 pl	3 pl		78
103a-E	423,887	44 boxes				176
103a-0	428,441					
103a-E	428,442					



# RUN NO. 5. Summary

## A. Plate Summary

Emulsion	420,649	423,970
Total Used	22	17
C+E	4	0
Good D	18	17
Exposed (Obs. Log)	19	17
F+G+H	2	4
Good I		
Test	3	3
Survey	14	14
Accepted (Test)		
Accepted (Final)		

## B. Time Survey Summary

Total Number of Nights	18
Number of Clear Nights	6 1/2
Nights with sub-standard seeing	4
Good Nights	2 1/2

Run No. 6

OBSERVING SCHEDULE

48" SURVEY

Apr 6/7 - Apr 26/27, 1950

E = end of evening twilight

D = beginning of morning twilight

Ms = moonset

Mr = moonrise

	Date	Start Work	Stop Work	Hours	No. of Pair	Observer	Remarks
April	6/7	E 19:45	Mr. 23:00	3 $\frac{1}{4}$	0	Ha	slight haze seeing 8-11, soft
	7/8	19:46	0:05	4 $\frac{1}{4}$	0	"	High thin clouds, seeing 0
	8/9	19:47	1:10	5 $\frac{1}{2}$	0	"	Storm, snow
	9/10	19:48	2:00	6 $\frac{1}{4}$	0	"	Clouds, haze
	10/11	19:49	2:40		2	"	64 & 65 seeing 0-3
	11/12	19:50	3:15		4	"	66 to 69 ✓ 2
	12/13	19:51	3:45		2	"	70 to 71 2-3
	13/14	19:52	<del>04:00</del>		0	Wi "	0-1+ soft
	14/15	19:53	<del>4:00</del>		0	" "	0-2
	15/16	19:54	3:59		2	" "	1-3
	16/17	19:55	3:58		5	" "	2-4
	17/18	19:56	3:57		5	" "	2 to 4
	18/19	19:57	3:56		5	" "	2- to 3
	19/20	Ms 20:50	3:55		4	" "	2- to 3+ Sky bright
	20/21	21:45	3:54		3	"	2+ to 3+
	21/22	22:45	3:53		2	"	2- to 4
	22/23	23:30	3:52		0	"	Wet sky seeing 0
	23/24	0:30	3:51		0	"	" "
	24/25	1:10	3:50		1	"	Birdy Cloudy seeing 4-5
	25/26	1:50	3:49		—	"	
	26/27	2:20	3:48		—	"	
	21 nights				19 nights	35 fields	
					10 good nights		
May	4/5	Thur	E: 8:15 P.M.	Mr. 10:00 P.M.		Wi	4-18
May	24/25	Thur.	Ms 0:50	0: 3:15		Ha	11-25

Run No. 6

OBSERVING LOG

Apr 6 - 27, 1950

A = accept  
R = reject  
c = card  
v = final

Date	Program	Plate No.	Emulsion Type	Emulsion No.	Field	Remarks	
Apr 6/7	Survey	-	-	-	-	cloudy	
7/8	✓	-	-	-	-	✓	
8/9	✓	-	-	-	-	Storm	
9/10	✓	-	-	-	-	cloudy	
10/11	✓	O-64	103a-o	420,649	12 <sup>h</sup> 34 <sup>m</sup> , +30°		A✓c
10/12	✓	E-64	103a-e	423,970	✓		A✓c
10/13	✓	O-65	103a-o	420,649	14 <sup>h</sup> 29 <sup>m</sup> , +12°		A✓c
✓	✓	E-65	103a-e	423,970	✓		A✓c
11/12	✓	O-66	103a-o	420,649	11 <sup>h</sup> 12 <sup>m</sup> , +12°		A✓c
✓	✓	E-66	103a-e	423,970	✓		A✓c
✓	✓	O-67	103a-o	420,649	12 <sup>h</sup> 34 <sup>m</sup> , +24°	emulsion	A✓c
✓	✓	E-67	103a-e	423,970	✓	emulsion	A✓c
✓	✓	O-68	103a-o	420,649	13 <sup>h</sup> 52 <sup>m</sup> , +24°	"	A✓c
✓	✓	E-68	103a-e	423,970	✓	"	A✓c
✓	✓	O-69	103a-o	420,649	15 <sup>h</sup> 12 <sup>m</sup> , +12°	"	R✓c
✓	✓	E-69	103a-e	423,970	✓	"	R✓c
12/13	✓	O-70	103a-o	420,649	11 <sup>h</sup> 12 <sup>m</sup> , +20°	14 <sup>h</sup> 18 <sup>m</sup> +30°	A✓c
✓	✓	E-70	103a-e	423,970	✓		A✓c
✓	✓	O-71	103a-o	420,649	15 <sup>h</sup> 52 <sup>m</sup> , +36°		A✓c
✓	✓	E-71	103a-e	423,970	✓		A✓c
13/14	Zwicky	PS 357	103a-E	428,442	12 <sup>h</sup> 56 <sup>m</sup> +28°35'	Com. 1	See 0-11
	"	PS 358	103a-o	428,441	" "		-
	"	PS 359	103a-o	428,441	12 <sup>h</sup> 29 <sup>m</sup> +12°24'	Blue Stars	-
	"	PS 360	103a-E	428,442	" "		-
14/15	Zwicky	PS 361	103a-o	428,441	12 <sup>h</sup> 29 <sup>m</sup> +12°24'	See 0-2	-
	"	PS 362	103a-E	428,442	" "		-
	"	F-1	Film	23a	Filter, Focus Test		-
	"	PS 363	103a-o	428,441	12 <sup>h</sup> 56 <sup>m</sup> +28°35'		-
15/16	Survey	O-72	103a-o	420,649	9 <sup>h</sup> 36 <sup>m</sup> +18°	Drying mark + chip	R✓c
	4 plates	E-72	103a-E	423,970	" "	Chip-filter-emulsion	R✓c
	cracked	O-73	103a-o	420,649	11 <sup>h</sup> 16 <sup>m</sup> +24°		A✓c
	12 plates	E-73	103a-E	423,970	" "	chip-spots, emulsion	R✓c
	holder	QO-2	103a-o	420,649	Selected Area 57		-
		F-2	103a-E	423,970	Filter No. 18		-
16/17	Survey	O-74	103a-o	420,649	10 <sup>h</sup> 0 <sup>m</sup> +12°		A✓c
	RPH sticks	E-74	103a-E	423,970	" "		A✓c
	in telescope						



# Run No. 6

Date	Program	Plate No.	Emulsion Type	Emulsion No.	$\alpha$	$\delta$	Remarks	
April 20/21	Survey	O-93	103a-0	420,649	13 <sup>h</sup> 12 <sup>m</sup>	+12°	Images <sup>discharges</sup> poor	RVC
		E-93	103a-E	423,886	"	"	Drying Marks	RVC
		O-94	103a-0	420,649	14 <sup>h</sup> 24 <sup>m</sup>	+18°	discharges	RVC
		E-94	103a-E	423,886	"	"		RVC
		O-95	103a-0	420,649	16 <sup>h</sup> 28 <sup>m</sup>	+30°	drying contours	RVC
		E-95	103a-E	423,886	"	"	" "	RVC
		HS-1	103a-0	428,441	Regular	System 2	S.A. 57 moon up	—
April 21/22	Survey	O-96	103a-0	420,649	14 <sup>h</sup> 0 <sup>m</sup>	+6°		AVC
		E-96	103a-E	423,886	"	"		AVC
		O-97	103a-0	420,649	15 <sup>h</sup> 12 <sup>m</sup>	+6°		AVC
		E-97	103a-E	423,886	"	"	Small box	AVC
April 22/23	Survey	F-4	103a-E	423,886	Filter	No. 21	seeing 0-1	—
April 23/24	Survey	No	Observations				seeing 0-1	—
April 24/25	Tests	F-5	103a-0	420,649	Focus	—	Blue Plate Holder	—
		SS-1	103a-0	420,649	Step	Scale		—
		O-98	103a-0	420,649	16 <sup>h</sup> 48 <sup>m</sup>	-18°	clouds emulsion defect	RVC
		E-98	103a-E	423,886	"	"		RVC



Run No. 6

Apr 6-27, 1950

Plate Log

Blue Plates 103a-0

Emulsion No. 420,649

ON Hand: ~~100~~ Apr 6, 1950

285 = 280 + 2 + 3

End of run:

239 = 236 + 3

46

A = B + C, B = D + E, D = F + G + H + I

DATE	INSPECTION			PRE-TEST		LATER DEFECTS			Good	Date
	Total	Number Good	Defective	Good	Breaking	Breaking	Bad Emulsion	other		
	A	B	C	D	E	F	G	H	I	April
	10	10	0	9	1					
1	1	1	0	1	0					
7	7	7	0	5	2					16
4	4	4	0	4	0					17
5	5	5	0	5	0					18
4	4	4	0	4	0					19
5	5	5	0	4	1					20
4	4	4	0	3	1					21
3	3	3	0	2	1					22
	43									

2 bad emulsions

REMARKS

← C — \* — E — \* — F — \* — G — \* — H →

Run No. 6

Apr 6-27, 1950

Plate log

Red Plates	103a-E	Emulsion No.	423,970
on Hand: Apr. 6, 1950		72 + 3 + 3 =	78
End of Run:		56 + 3 =	59
		19 = 78 + 2	exposed to light because backing

$A = B + C, B = D + E, D = F + C + H + I$

INSPECTION			PRE-TEST		Later Defects			Good	Date
TOTAL	Number Good	Defective	Good	Breaking	Breaking	Bad Emulsion	other	I	
A	B	C	D	E	F	G	H	I	
8	8	0	8	0		2			
1	1	0	1	0					
7	7	0	7	0		4			

REMARKS

← C — \* — E — \* — F — \* — G — \* — H →

orig. marks or backing

# Run No. 6 Supply Records

ON HAND: Beginning of Run:		Apr. 6, 1950	Raid. 4-7-50	Total
Chemicals:	D-19	40 GAL.	24 gal.	64 gal.
	Naccotix	12 ✓		12 ✓
	Naccotix-Concentrate	16 ✓	16 gal.	32 ✓
	Glacial Acetic Acid	5½ ✓		5½ ✓
	Distilled Water	7½ ✓		7½ ✓

		Unopened	Opened	Tested	Total
Plates:	103a-O 420,649	280	2	3	285
	103a-E 423,886	136			136
	103a-E 423,887	176			176
	103a-E 423,970	72	3	3	78

103a-O 428,441 2 in 48" dome  
103a-E 428,442 4 in 48" dome

2 gal D-19 to 200" Open 14  
1 gal D-19 to 18" Open 17  
10 boxes 970 to 48" "  
6 boxes 428,442 "  
5 boxes 428,441 "

## Plate Inventory as of April 14.

	Emulsion	Unopened	200"	Opened	Tested	Total
Survey	103a-O 420,649	68 boxes	-	-	3 plates	275
	103a-E 423,886	34 boxes	-	-	-	136
	103a-E 423,887	-	44 boxes	-	-	176
	103a-E 423,970	16 boxes	-	3 plates	3 plates	
	103a-O 428,441	5 boxes	7 boxes	-	-	48
	103a-E 428,442	7 boxes	20 boxes	2 plates	-	42/10

~~1 gal D-19 to 18" Dome 4/17/50~~

Inventory: End of Run - April 25

Plates:

~~200" Dome~~

Emulsion	48"	200"	open	Total
420,649	59 boxes	0	3 plates	239
423,886	28 boxes	0	2 plates	114
423,887	0	44 boxes	0	176
423,970	14 boxes	0	3 plates	59
428,441	3 boxes	7 boxes	3 plates	43
428,442	7 boxes	20 boxes	0	108

D-19	36 gal.
Naccodix	9 gal
Naccodix Conc.	28 gal
Glacial Acetic Acid	5 gal
Distilled Water	7 1/2 gal



## Shipping Log

Box No. 1.	O, E - 64, 65, 66, 67, 68, 69	To Pasadena via Kelly, Monday, April 17
Box No. 2.	O, E - 70, 71, 72, 73, 74, 75	To Pasadena via Kelly, Thursday, April 20
Box No. 3.	O, E - 76, 77, 78, 79, 80, 81	
Box No. 4.	O, E - 82, 83, 84, 85, 86, 87	
Box No. 5.	O, E - 88, 89, 90, 91, 92, 93	To Pasadena via Hill
Box No. 6.	O, E - 94, 95, 96, 97,	Tuesday, April 25

# Run No. 6 - Summary

## A. Plate Summary

Emulsion	420649	<sup>970</sup> <del>423888</del>	<sup>PFL</sup> <del>423820</del>
Total used	46	19	22
C+E	6	0	0
Good D	40	16	
Exposed (Bulb)	37	16	22
F+G+H	2	6	0
<del>Photo of</del>			
<del>Foot</del>			
<del>Survey</del>			

## B. Time Summary

Total Number of Nights	19
Number of Clear Nights	15
Nights with seeing $\leq 2$	5
Good nights	10

Run No. 7

OBSERVING SCHEDULE  
48" SURVEY

May 4/5 - May 24/25, 1950

E = end of evening twilight

D = beginning of morning twilight

Ms = moonset

Mr = moonrise

Date	Start Work	Stop Work	No. of Plates <del>Plates</del>	Survey No. of Pairs	Observers	Remarks
4/5	E 20:20	Mr 21:50	0	0	Wi	Wet sky: Seeing 1+
5/6	20:21	22:55	4	2	"	Seeing 2: Sky wet
6/7	20:22	23:50	0	0	"	Seeing 1+: High Wind
7/8	20:23	0:35	0	0	"	Partly Cloudy - Westwind
8/9	20:24	1:15	5	2	"	Seeing 3-4 Clear
9/10	20:25	1:45	4	2	"	Seeing 1+ to 2+ "
10/11	20:26	2:14	0	0	"	Seeing 4-5 Clouds
11/12	20:27	2:39	1	0	"	Seeing 2 Clouds
12/13	20:28	3:04	0	0	"	Seeing 1-2 Thin clouds
13/14	20:29	D 3:30	8	4	"	Seeing 2-2+ Wet sky
14/15	20:30	3:28	12	6	"	Seeing 2-3
15/16	20:31	3:26	11	5	"	Seeing 2-4
16/17	20:32	3:24	1	0	"	Seeing 1 Thunderstorm
17/18	20:33	3:22	0	0	"	Seeing 1, soft
18/19	Ms 20:40	3:20	11	5	"	Seeing 3
19/20	21:35	3:18	4	2	"	Seeing 2+ (High clouds appeared)
20/21	22:25	3:16	9	4	"	Seeing 2-4, Clear
21/22	23:15	3:15	2	0	"	Seeing < 1
22/23	23:50	3:14			"	
23/24	0:20	3:13			"	
24/25	0:55	3:12			"	
			18 nights	Total Plates: 72		
			Cloudy 4	Survey 32 pairs		
			Clear 14	Good Seeing 9		
June						
5/6	E 20:55	Mr 23:45			Wi	5-19
21/22	Ms 23:25	D 2:59			Ha	8-22



# Run No. 7

## OBSERVING LOG

May 4-25, 1950

A = accept  
R = reject  
c = card  
V = final

Date	Program	Plate No.	Emulsion Type	Emulsion No.	$\alpha$	$\delta$	Remarks	
May 4/5	Survey		No	Observations				
May 5/6	Survey	O-99	103a-O	420,649	11 <sup>h</sup> 16 <sup>m</sup>	+30°	static discharges seeing borderline	A <sup>✓</sup> c
		E-99	103a-E	423,886	"	"	"	A <sup>✓</sup> c
		O-100	103a-O	420,649	12 <sup>h</sup> 08 <sup>m</sup>	"	static discharge	R <sup>✓</sup> c
		E-100	103a-E	423,886	"	"	crack - elongated lines	R <sup>✓</sup> c
May 6/7	Survey		No	Observations				
May 7/8	Survey		No	Observations				
May 8/9	Test	F-1	103a-O	428,441	8/10	Plate holder focus test		
	Survey	O-101	103a-O	420,649	13 <sup>h</sup> 0 <sup>m</sup>	+24°	non-uniform emulsion static	R <sup>✓</sup> c
		E-101	103a-E	423,886	"	"		A <sup>✓</sup> c
		O-102	103a-O	420,649	14 <sup>h</sup> 44 <sup>m</sup>	+24°	static discharge	A <sup>✓</sup> c
		E-102	103a-E	423,886	"	"	crack	A <sup>✓</sup> c
May 9/10	Survey	O-103	103a-O	420,649	11 <sup>h</sup> 42 <sup>m</sup>	+24°		A <sup>✓</sup> c
		E-103	103a-E	423,886	"	"		A <sup>✓</sup> c
		O-104	103a-O	420,649	12 <sup>h</sup> 48 <sup>m</sup>	+6°		A <sup>✓</sup> c
		E-104	103a-E	423,886	"	"		A <sup>✓</sup> c
May 10/11	Survey		No	Observations				
May 11/12	Test	PS-364	103a-E	423,886	11 <sup>h</sup> 40 <sup>m</sup>	+17° 28'		—
May 12/13	Survey		No	Observations				—
May 13/14	Survey	O-105	103a-O	420,649	12 <sup>h</sup> 36 <sup>m</sup>	+36°	Some static	A <sup>✓</sup> c
		E-105	103a-E	423,886	"	"		A <sup>✓</sup> c
		O-106	103a-O	420,649	14 <sup>h</sup> 0 <sup>m</sup>	"	static discharge	A <sup>✓</sup> c
		E-106	103a-E	423,886	"	"		A <sup>✓</sup> c
		O-107	103a-O	420,649	15 <sup>h</sup> 24 <sup>m</sup>	"	static discharge	A <sup>✓</sup> c
		E-107	103a-E	423,886	"	"		A <sup>✓</sup> c
		O-108	103a-O	420,649	16 <sup>h</sup> 20 <sup>m</sup>	"	static discharge	R <sup>✓</sup> c
		E-108	103a-E	423,886	"	"	Corner Crack	R <sup>✓</sup> c
May 14/15	Survey	O-109	103a-O	420,649	11 <sup>h</sup> 40 <sup>m</sup>	+36°	static discharge seeing borderline Emul. defects	A <sup>✓</sup> c
		E-109	103a-E	423,886	"	"		A <sup>✓</sup> c
		O-110	103a-O	420,649	13 <sup>h</sup> 04 <sup>m</sup>	"	static discharge	A <sup>✓</sup> c
		E-110	103a-E	423,886	"	"		A <sup>✓</sup> c
		O-111	103a-O	420,649	14 <sup>h</sup> 0 <sup>m</sup>	+42°	static discharge	A <sup>✓</sup> c
		E-111	103a-E	423,886	"	"	Emul. defects cracked corner some static	A <sup>✓</sup> c
		O-112	103a-O	420,649	15 <sup>h</sup> 10 <sup>m</sup>	+30°		R <sup>✓</sup> c
		E-112	103a-E	423,886	"	"		R <sup>✓</sup> c
		O-113	103a-O	420,649	16 <sup>h</sup> 02 <sup>m</sup>	+24°		A <sup>✓</sup> c
		E-113	103a-E	423,886	"	"		A <sup>✓</sup> c
		O-114	103a-O	420,649	17 <sup>h</sup> 12 <sup>m</sup>	+18°	static discharge	R <sup>✓</sup> c
		E-114	103a-E	423,886	"	"		R <sup>✓</sup> c



Run No. 7.

## OBSERVING LOG

A = accept  
R = reject  
c = card  
V = final

May 4-25, 1950

Date	Program	Plate No.	Emulsion Type	Emulsion No.	$\alpha$	$\delta$	Remarks	
May 15/16	Special	PS 365	<del>103a</del> 103a-O	428,441	S.A. 57 +	Sextans dwarf.		—
	Survey	O-115	103a-O	420,649	12 <sup>h</sup> 30 <sup>m</sup>	+42°	Static	A ✓ c
		E-115	103a-E	423,886	"	"	Scratches	A ✓ c
		O-116	103a-O	420,649	13 <sup>h</sup> 32 <sup>m</sup>	+36°	Static	A ✓ c
		E-116	103a-E	423,886	"	"	Scratches, scratches, Emul. defects	A ✓ c
		O-117	103a-O	420,649	15 <sup>h</sup> 36 <sup>m</sup>	+24°	running Emul. defects	R ✓ c
		E-117	103a-E	423,886	"	"	light leak	R ✓ c
		O-118	103a-O	420,649	16 <sup>h</sup> 48 <sup>m</sup>	+36°		A ✓ c
		E-118	103a-E	423,886	"	"	emulsion defects	A ✓ c
		O-119	103a-O	420,649	18 <sup>h</sup> 0 <sup>m</sup>	+18°	variable density	R ✓ c
		E-119	103a-E	423,886	"	"		R ✓ c
May 16/17	Special	PS 366	103a-O	428,441	S.A. 57 +	Sextans Dwarf		—
May 17/18	NO Observations							
May 18/19	Special	PS 367	103a-O	428,441	S.A. 57 +	Uma Major Dwarf		—
	Survey	O-120	103a-O	420,649	14 <sup>h</sup> 10 <sup>m</sup>	+48°		A ✓ c
		E-120	103a-E	423,886	"	"	small pos	A ✓ c
		O-121	103a-O	420,649	15 <sup>h</sup> 36 <sup>m</sup>	+30°	seeing too dark	A ✓ c
		E-121	103a-E	423,886	"	"		A ✓ c
		O-122	103a-O	420,649	16 <sup>h</sup> 48 <sup>m</sup>	+18°		A ✓ c
		E-122	103a-E	423,886	"	"		A ✓ c
		O-123	103a-O	420,649	18 <sup>h</sup> 0 <sup>m</sup>	+12°		A ✓ c
		E-123	103a-E	423,886	"	"		A ✓ c
		O-124	103a-O	420,649	12 <sup>h</sup> 02 <sup>m</sup>	+54°	static	R ✓ c
		E-124	103a-E	423,886	"	"	Power failure during exposure	R ✓ c
May 19/20	Survey	O-125	103a-O	420,649	13 <sup>h</sup> 16 <sup>m</sup>	+24°	static	A ✓ c
		E-125	103a-E	423,886	"	"	Bad Scratches	A ✓ c
		O-126	103a-O	420,649	14 <sup>h</sup> 44 <sup>m</sup>	+30°	High Thin Clouds	R ✓ c
		E-126	103a-E	423,886	"	"	" " " " Bad Scratches	A ✓ c
May 20/21	Survey	O-127	103a-O	420,649	14 <sup>h</sup> 28 <sup>m</sup>	+36°	Static	A ✓ c
		E-127	103a-E	423,886	"	"	Scratches Emul. Defects	A ✓ c
		O-128	103a-O	420,649	15 <sup>h</sup> 30 <sup>m</sup>	+42°		R ✓ c
		E-128	103a-E	423,886	"	"		R ✓ c
		O-129	103a-O	420,649	16 <sup>h</sup> 57 <sup>m</sup>	+30°		A ✓ c
		E-129	103a-E	423,886	"	"		A ✓ c
		O-130	103a-O	420,649	18 <sup>h</sup> 08 <sup>m</sup>	+48°	static	A ✓ c
		E-130	103a-E	423,886	"	"		A ✓ c
		PS-368	FILM East. Comm.	—	12 <sup>h</sup> 56 <sup>m</sup>	+28° 35'	(Coma Cluster)	

DATE	PROGRAM	R. NO.	EMUL. TYPE	EMUL. No.	$\alpha$	$\delta$	REMARKS
MAY 21/22	PS-369 →		East. Com.		12 <sup>h</sup> 52 <sup>m</sup>	+28° 35'	(Coma Cluster)
	PS-370 →		"		"	"	" "
	Sunway		No. Obs.				Seeing 1, very soft.

Run No. 7

May 4-25, 1950

Plate Log

Blue Plates 103a-0 Emulsion No. 420,649  
 ON Hand: May 4, 1950  $59 \times 4 + 3 = 239$   
 End of Run:  $50 \times 4 + 4 = 204$  wed 35  
 $A = B + C, B = D + E, D = F + G + H + I$

INSPECTION			PRE-TEST		LATER DEFECTS			Good	Date
TOTAL	Number Good	Defective	Good	Breaking	Breaking	Bad Emulsion	Other	I	
A	B	C	D	E	F	G	H	I	
3	3	0	2	1					May 5
2	2	0	2	0					May 6
2	2	0	2	0					May 8
2	2	0	2	0					May 9
2	2	0	2	0					May 13
6	6	0	6	0					May 14
6	6	0	5	1					May 15
5	5	0	5	0					May 16
4	4	0	4	0	Broke in Processing				May 19
3	3	0	3	0					May 20
3	3	0	3	0					May 21

RUN No. 7

May 4-25, 1950

Plate Log

RED PLATES 103a-E Emulsion No. 423,886

On Hand: May 4, 1950

28x4 +2 = 114

End of Run.

19x4 +4

80

34

A = B + C, B = D + E, D = F + G + H + I

INSPECTION			PRE-TEST		LATER DEFECTS			I Good	Date
TOTAL	Number Good	Defective	GOOD	BREAKING	F Breaking Emulsion 1 corner crack	G Bad Emulsion	H Other		
2	2	0	2	0					May 5
2	0	corners 2	2	0					May 6
2	2	0	2	0					May 8
2	2	0	2	0					May 9
3	3	0	3	0					May 13
6	6	0	6	0					May 14
6	6	0	5	1					May 15
5	5	0	5	0					May 16
4	4	0	4	0					May 19
2	2	0	2	0					May 20
3	3	0	3	0					May 24



# SHIPPING LOG

Box No. 1	99, 100, 101, 102, 103, 104	} Via Kelly May 18
Box No. 2	105, 106, 107, 108, 109, 110	
Box No. 3	111, 112, 113, 114, 115, 116	
Box No. 4,	117, 118, 119, 120, 121, 122	} Via Harrington May 22
Box No. 6,	123, 124, 125, 126, 127, 128, <del>129</del>	
Box No. 7	129, 130,	

Run No. 7.

Supply Records

Beginning of Run: May 4, 1950

	ON HAND	REC'D	SHIPPED	TO	TOTAL ON HAND
D-19	36 gal	32 gal	8 gal	4-200" 4-18"	56 gal
Naccofix	9 gal	0	0		9 gal
Naccofix Conc.	28 gal	8 gal	4 gal	18"	32 gal
Glacial Acetic Acid	5 gal				
Distilled Water	7 1/2 gal				

Emulsion	48"	200"	open	Total
420,649	59 boxes	0	3 plates	239
423,886	28 boxes	0	2 plates	114
423,887	0	44 boxes	0	176
423,970	14 boxes	0	3 plates	59
428,441-	3 boxes	7 boxes	3 plates	43
428,442	7 boxes	20 boxes	0	108

May 10 two gal Naccofix Conc → 200"  
Water Filter Replaced May 14.

May 20, 1 Gal D-19 to 18" Dome

-19	34	GAL.
tic Acid	3½	"
o CONC.	28	"
roxix	5	"
Water	6	"

# RUN No. 7 - Summary

## A. Plate Summary

Emulsion	420,649	423,981	428,841
Total Used	35	34	4
C+E	2	3	-
Exposed (Plakely)	32	33	4
F+G+H	1	1	-

## B Time Summary

Total Number of Nights	18
Number of clear nights	14
Nights with seeing < 2	5
Good nights	9



Run No. 8

OBSERVING SCHEDULE  
48" SURVEY

JUNE 5/6 - JUNE 21/22, 1950

E = end of evening twilight

D = beginning of morning twilight

Ms = moonset

Mr = moonrise

Date	Start Work	Stop Work	No. of Plates	No. of Expos. Pairs	Observer	Remarks
5/6	E: 20:45	Mr: 23:45	4	2	Ha	N.W. Wind, seeing variable
6/7	20:46	0:15	0	0	"	Clouds, fog, wind
7/8	20:47	0:41	4	2	"	Seeing borderline
8/9	20:48	1:06	<del>4</del> 6	0	" Wi	Focus plates <sup>clear</sup> seeing 2-4
9/10	20:49	1:29	5	2	" "	Seeing 2-5
10/11	20:50	1:53	5	2	" "	Seeing 1-3 + smoke haze
11/12	20:51	2:20	9	4	" "	Seeing <1 to 3
12/13	20:52	2:50	5	2	" "	Seeing <1 to 3 <sup>only part of</sup> night useable
13/14	20:53	D: 3:09	0	0	" "	Seeing <1 fog
14/15	20:54	3:08	8	4	" "	Seeing 1-3
15/16	20:55	3:07	<del>4</del> 4	<del>1</del> 1	" "	Seeing <1 to 2 + wet sky
16/17	20:56	3:06	0	0	" "	Seeing <1 wet sky
17/18	Ms: 21:20	3:05	9	4	" "	Seeing 2 to 3+
18/19	21:55	3:04	8	4	" "	Seeing 3 to 4
19/20	22:25	3:03	8	3	"	Seeing 3 to 5
20/21	23:00	3:02	9	3	"	Seeing 3 to 5
21/22	23:27	3:01	2	0	"	Seeing 2 - clouded over
17			80	33		

July

3/4 E: 20:45 Mr: 22:15

Wi 3-17

23/24 Ms: 0:10 D: 3:20

Ha 100 - 24

# Run No. 8

## OBSERVING LOG

June 5-22, 1950

A = accept  
R = reject  
c = card  
✓ = final

Date	Program	Plate No.	Emulsion Type	Emulsion No.	$\alpha$	$\delta$	Remarks			
June 5/6	Survey	O-131	420,649	103a-o	13 <sup>h</sup> 26 <sup>m</sup>	+30°	slight disc.	A ✓	A	c
"	"	E-131	103a-E	423,886	"	"	slight scratch	A ✓	A	c
"	"	O-132	103a-o	420,649	14 <sup>h</sup> 56 <sup>m</sup>	+36°		A ✓	A	c
"	"	E-132	103a-E	423,886	"	"	slight scratches	A ✓	A	c
June 6/7	No Observations		—	—	—	—	clouds, fog, Wind.			
June 7/8	Survey	O-133	103a-o	420,649	13 <sup>h</sup> 0 <sup>m</sup>	+42°	worms, some uneven	A ✓	A	c
"	"	E-133	103a-E	423,886	"	"	horrible haze	A ✓	A	c
"	"	O-134	103a-o	420,649	16 <sup>h</sup> 02 <sup>m</sup>	+30°		A ✓	A	c
"	"	E-134	103a-E	423,886	"	"		A ✓	A	c
June 8/9	Focus Plates	F-1	103a-E	423,970	13 <sup>h</sup> 59 <sup>m</sup>	+21°	No. 22			
"	"	F-2	103a-o	420,649	"	"	BPH			
"	"	F-3	"	"	14 <sup>h</sup> 58 <sup>m</sup>	+22°	RPH			
"	"	F-4	"	"	"	"	BPH			
"	"	F-5	103a-E	423,970	"	"	Filter No. 23			
"	"	F-6	103a-E	423,886	16 <sup>h</sup> 00 <sup>m</sup>	+23°	BPH			
June 9/10	Survey	O-135	103a-o	420,649	12 <sup>h</sup> 08 <sup>m</sup>	+24°		A ✓	A	c
"	"	E-135	103a-E	423,886	"	"	scratches small fox	A ✓	A	c
"	"	O-136	103a-o	420,649	15 <sup>h</sup> 36 <sup>m</sup>	+12°		A ✓	A	c
"	"	E-136	103a-E	423,886	"	"	guiding?	A ✓	A	c
"	Focus Plate	F-7	103a-o	428,441	18 <sup>h</sup> 3 <sup>m</sup>	+21° 38'	BPH			
June 10/11	Focus Plate	F-8	103a-o	428,441	15 <sup>h</sup> 24 <sup>m</sup>	+18° 20'	BPH			
"	Survey	O-137	103a-o	420,649	16 <sup>h</sup> 48 <sup>m</sup>	-12°	slight worms	A ✓	A	c
"	"	E-137	103a-E	423,886	"	"		A ✓	A	c
"	"	O-138	103a-o	420,649	18 <sup>h</sup> 0 <sup>m</sup>	-18°	seeing can see worms	R ✓	A	c
"	"	E-138	103a-E	423,886	"	"	seeing it	R ✓	A	c
June 11/12	Survey	O-139	103a-o	420,649	12 <sup>h</sup> 0 <sup>m</sup>	+42°	N.E. out of focus worms	R ✓	A	c
"	"	E-139	103a-E	423,886	"	"	emulsion streak	R ✓	A	c
"	"	O-140	103a-o	420,649	15 <sup>h</sup> 36 <sup>m</sup>	+6°	seeing worms	R ✓	R	c
"	"	E-140	103a-E	423,886	"	"	crack	R ✓	R	c
"	"	O-141	103a-o	420,649	16 <sup>h</sup> 48 <sup>m</sup>	-6°	seeing worms	R ✓	R	c
"	"	E-141	103a-E	423,886	"	"		R ✓	R	c
"	"	O-142	103a-o	420,649	18 <sup>h</sup> 0 <sup>m</sup>	-12°	slight worms out of focus	R ✓	R	c
"	"	E-142	103a-E	423,886	"	"	focus	R ✓	R	c
"	Focus Plate	F-9	103a-o	428,441	20 <sup>h</sup> 0 <sup>m</sup>	+22°				
June 12/13	Survey	O-143	103a-o	420,649	16 <sup>h</sup> 24 <sup>m</sup>	0°		A ✓	A	c
"	"	E-143	103a-E	423,886	"	"		A ✓	A	c
"	"	O-144	103a-o	420,649	17 <sup>h</sup> 36 <sup>m</sup>	-12°		R ✓	R	c

Run No. 8

0 = focus - Mink  
seeing - Our opinion

Date	Program	Plate No.	Emulsion Type	Emulsion No.	$\alpha$	$\delta$	Remarks
June 12/13	Focus Plate	F-10	103a-E	423,970	19 <sup>h</sup> 49 <sup>m</sup>	+22°28'	RPH.
June 13/14		No Observations					
June 14/15	Survey	O-145	103a-o	420,649	14 <sup>h</sup> 30 <sup>m</sup>	+42°	A✓ A c
"	"	E-145	103a-E	423,886	"	"	A✓ A c
"	"	O-146	103a-o	420,649	16 <sup>h</sup> 0 <sup>m</sup>	-18°	A✓ A c
"	"	E-146	103a-E	423,886	"	"	A✓ A c
"	"	O-147	103a-o	420,649	17 <sup>h</sup> 20 <sup>m</sup>	+24°	focus can be made ✓ R✓ A c
"	"	E-147	103a-E	423,886	"	"	not successful ✓ R✓ A c
"	"	O-148	103a-o	420,649	18 <sup>h</sup> 40 <sup>m</sup>	+34°	report at end ✓ A✓ A c
"	"	E-148	103a-E	423,886	"	"	focus ✓ A✓ A c
June 15/16	"	O-149	103a-o	420,649	19 <sup>h</sup> 4 <sup>m</sup>	+24°	during bubble ✓ A✓ A c
"	"	E-149	103a-E	423,886	"	"	running defect " A A c
"	Focus	F-11	103a-E	423,970	17 <sup>h</sup> 12 <sup>m</sup> 31 <sup>s</sup>	+26°6'	APH
"	"	F-12	"	423,886	18 <sup>h</sup> 36 <sup>m</sup>	+15°	RPH + 22
June 16/17	—	No Observations					
June 17/18	Focus	F-13	103a-E	423,970	20 <sup>h</sup> 36 <sup>m</sup>	+18°	APH
"	Survey	O-150	103a-o	420,649	12 <sup>h</sup> 08 <sup>m</sup>	+36°	RPH possible worm A ✓ A c
"	"	E-150	103a-E	423,886	"	"	A ✓ A c
"	"	O-151	103a-o	420,649	15 <sup>h</sup> 36 <sup>m</sup>	-0°	RPH A A c
"	"	E-151	103a-E	423,886	"	"	A A c
"	"	O-152	103a-o	420,649	17 <sup>h</sup> 20 <sup>m</sup>	+30°	RPH A ✓ A c
"	"	E-152	103a-E	423,886	"	"	A ✓ focus A c
"	"	O-153	103a-o	420,649	19 <sup>h</sup> 04 <sup>m</sup>	+30°	RPH A A c
"	"	E-153	103a-E	423,886	"	"	A A c
June 18/19	"	O-154	103a-o	420,649	13 <sup>h</sup> 30 <sup>m</sup>	+42°	2 slight worms RPH A c
"	"	E-154	103a-E	423,886	"	"	baking defect bad scratches A c
"	"	O-155	103a-o	420,649	16 <sup>h</sup> 48 <sup>m</sup>	-0°	RPH A c
"	"	E-155	103a-E	423,886	"	"	A c
"	"	O-156	103a-o	420,649	18 <sup>h</sup> 0 <sup>m</sup>	-6°	RPH worms A c
"	"	E-156	103a-E	423,886	"	"	A c
"	"	O-157	103a-o	420,649	19 <sup>h</sup> 12 <sup>m</sup>	-18°	RPH A c
"	"	E-157	103a-E	423,886	"	"	A c
June 19/20	Zwicky	PS-371-2	103a-E	423,970	13 <sup>h</sup> 20 <sup>m</sup>	-40°	—
"	"	PS-372-2	103a-E	423,970	12 <sup>h</sup> 56 <sup>m</sup>	+28°	—
"	Survey	O-158	103a-o	420,649	16 <sup>h</sup> 24 <sup>m</sup>	-18°	RPH A c
"	"	E-158	103a-E	423,886	"	"	A c
"	"	O-159	103a-o	420,649	17 <sup>h</sup> 36 <sup>m</sup>	-18°	RPH A

# Run No. 8

Date	Program	Plate No.	Emulsion Type	Emulsion No.	$\alpha$	$\delta$	REMARKS	
June 19/20	Survey	O-160	103a-O	420,649	19°30'	-24°	RPH	A c
	"	E-160	103a-E	423,886	"	"		A c
June 20/21	Zwicky	PS-373-Z	103a-E	423,970	14°30'	-30°		
	"	PS-374-Z	103a-E	423,970	12°56'	+28°		
	"	PS-375-Z	103a-E	423,970	15°18'	+37°		
	Survey	O-161	103a-O	420,649	16°54'	+24°	RPH	R c
	"	E-161	103a-E	423,886	"	"	demonstrated emulsion	R c
	"	O-162	103a-O	420,649	18°24'	-18°	RPH	R c
	"	E-162	103a-E	423,886	"	"	cracked	R c
	"	O-163	103a-O	420,649	19°36'	-18°	RPH	A c
	"	E-163	103a-E	423,886	"	"		A c
June 21/22	Zwicky	PS-376-Z	103a-E	423,970				
	"	PS-377-Z	103a-E	423,886				
No. of plates Exposed								
420,649	423,886	423,970	428,441	Total				
36	36	10	3	86				



RUN No. 8

PLATE LOG

~~May~~ JUNE 5-22, 1950

BLUE PLATES 103a-0 Emulsion No. 420,649  
 ON HAND JUNE 5, 1950: 204 <sup>exposed</sup> -36 - <sup>broken</sup> 5 = 163 ✓  
 END OF RUN 163

$A = B + C, B = D + E, D = F + G + H + I$

INSPECTION			PRE-TEST		LATER DEFECTS			GOOD	DATE
TOTAL	NUMBER	IN DEFECTIVE	GOOD	BREAKING	BREAKING	BAD EMULSION	OTHER	I	
A	B	C	D	E	F	G	H	I	
3	3	0	2	1					June 7
2	2	0	2	0					June 8
4	4	0	3	1	box poorly packed				June 9
4	3	1 chip out of corner	3	1					June 10
4	4	0	2	2					June 11
4	4	0	4	0	Two together - spacer clipped				June 12
2	2	0	1	0					June 13
4	4	0	4	0					June 15
2	2	0	2	0					June 16
3	3	0	3	0					June 18
3	3	0	3	0					June 19
3	3	0	3	0					June 20
2	2	0	2	0					3 on June 20 <sup>2</sup> June 21
40	39	1	35	5					

RUN No. 8

PLATE LOC  
JUNE 5-22, 1950

RED PLATES 103a-E  
ON HAND JUNE 5, 1950:

Emulsion No. 423,886  
80 - 36 = 44 ✓

END OF RUN

44  
35

A = B + C, B = D + E, D = F + G + H + I

INSPECTION		PRE-TEST			LATER DEFECTS				GOOD	DATE
TOTAL	NUMBER GOOD	DEFECTIVE	GOOD	BREAKING	BREAKING	BAD EMULSION	OTHER			
A	B	C	D	E	F	G	H	I		
2	2	0	2	0					June 7	
3	3	0	3	0					June 9	
4	4	0	4	0					June 10	
1	1	0	1	0					June 11	
4	3	1 chip out of work	4	0					June 12	
2	2	0	2	0					June 13	
4	4	0	4	0					June 15	
3	3	0	3	0					June 16	
3	3	0	3	0					June 18	
3	3	0	3	0					June 19	
3	3	0	3	0					June 20	
3	3	0	3	0					June 21	
35	34	1	35	0						

RUN NO. 8SHIPPING LOG

Box	No. 1.	O, E - 131, 132, 133, 134, 135, 136	Pasadena, via Kelly June 19,
Box	No. 2.	O, E - 137, 138, 139, 140, 141, 142	
Box	No. 3.	O, E - 143, 144, 145, 146, 147, 148	
Box	No. 4.	O, E - 149, 150, 151, 152, 153, 154	
Box	No. 5.	O, E - 155, 156, 157, 158, 159, 160	Pasadena, via Cunningham June 22
Box	No. 6.	O, E - 161, 162, 163,	

RUN NO 8.

## SUPPLY RECORDS

ON HAND	BEGINNING OF RUN	REC'D	SHIPPED TO	End of run
	ON HAND	June 15	June 15	TOTAL ON HAND
D-19	34 gal	32 gal	2 gal zwicky	
Naccofix	5 gal	8 gal		
Naccofix Conc.	28 ✓			
Glacial Acetic Acid	3 1/2 ✓			
Distilled Water	6 ✓			

		Beginning of Run	
Emulsion	48"	200" open	Total
420,649	204 ✓		204
423,886	80 ✓		80
423,887	0	176	176
423,970	59 ✓		59
428,441	71	28	39
428,442	28	80	108

		End of Run.	
D-19		36 gal	
Naccofix		11 gal	
Naccofix Conc.		24 gal	
Glacial Acetic Acid		3 1/4 gal	
Distilled Water		7 gal	

		<del>Bob took down some 970's? No</del>			
Emulsion	48"	open	tested	200"	Total
420,649	40	2 plates	2	—	163 ✓
423,886	10	2 plates	2	—	44 ✓
423,887				44	176 ✓
423,970	12				48 ✓
428,441	2			7	36 ✓
428,442	7			20	108 ✓

428,442  
Two ~~428,442~~ to Pasadena



# Run No. 8 Summary

## A PLATE SUMMARY

Emulsion	420,649	423,886	423,970	428,441	TOTAL
Total <sup>Traces</sup>	40	35	11	3	
C+E	6	1			
Exposed	36	36	11	3	86
FILED					

## B TIME SUMMARY

Total No. Nights	17
Number of Clear Nights	12
Nights with seeing $\leq 2$	2
Good Nights or part nights	10

# Run No. 9

## OBSERVING SCHEDULE

48" SURVEY

July 3/4 - July 23/24, 1950

E = end of evening twilight

D = beginning of morning twilight

Ms = moonset

Mr = moonrise

Date	Start Work	Stop Work	No. of Plates	No. of Survey Pairs	Observer	Remarks
3/4	E: 9:00	Mr: 10:15	2	0	Wi	Seeing 3-4 Partly Cloudy
4/5	8:59	10:43	4	0	"	Seeing 2-4 Cloudy
5/6	8:58	11:09	0	0	"	Clouds
6/7	8:57	11:33	0	0	"	Clouds
7/8	8:56	12:00	0	0	"	clouds
8/9	8:55	12:25	0	0	"	clouds
9/10	8:54	1:00	2	1	"	Seeing <1 to 2+
10/11	8:53	1:30	6	3	" Ha	Seeing <1 to 3
11/12	8:52	2:12	8	4	" "	Seeing 1 to 3
12/13	8:51	3:00	7	2	" "	Seeing <1 to 3
13/14	8:50	D 3:24	11	5	" "	Seeing 2 to 4
14/15	8:49	3:25	5	2	" "	Seeing <1 to 3
15/16	8:48	3:26	8	3	" "	Seeing 1 to 3
16/17	8:47	3:27	10	4	" "	" 1 to 3
17/18	Ms 9:00	3:28	9	4	" "	" 2 to 4
18/19	9:30	3:29	6	2	" "	" 4 to 1-
19/20	9:57	3:30	5	1	" "	" 1 to 4
20/21	10:25	3:31	3	0	" "	" 1 to 3 To 0
21/22	10:54	3:32	1	0	" "	" 1 to 2-
22/23	11:30	3:33	5	1	" "	" <1 to 2+
23/24	12:00	3:34	No observations		"	" 1, Clouds
			92	32		

August  
Thur. Aug 3/4 E 8:25 Mr. 10:20  
Wed Aug 23/24 Ms 12:35 D 4:00

Ha 3-17

Wi 10-24

Run No. 9

OBSERVING LOG

July 3-24, 1950

A = accept  
R = reject  
c = card  
✓ = final

Date	Program	Plate No.	Emulsion Type	Emulsion No.	$\alpha$	$\delta$	Remarks	
July 3/4	Tests	F-1	103a-E 423,886	423,886	16° 20'	+14°	RPH + #2	-
	"	F-2	103a-0	420,649	16° 35'	+14°	RPH	-
July 4/5	"	F-3	103a-0	420,649	15° 32'	+10° 42'	RPH	-
	"	F-4	103a-E	423,970	15° 32'	+10° 42'	RPH + No. 25	-
	"	F-5	103a-E	423,970	16° 5'	+10° 1'	RPH + No. 26	-
	Cummingham	PS-378-W	103a-E	423,886	16° 23' 54"	+8° 38' 0"	Object: Wilson-Wallengruiet	-
July 5/6			No	Observations				
July 6/7			No	Observations				
July 7/8			No	Observations				
July 8/9			No	Observations				
July 9/10	Survey	O-164	103a-0	420,649	18° 0'	+6°		A ✓ c
	"	E-164	103a-E	423,886	18° 0'	+6°	slight crack trace of worms	A ✓ c
July 10/11	Survey	O-165	103a-0	420,649	17° 12'	+12°		R ✓ c
	"	E-165	103a-E	423,886	"	"	scratch - emulsion drop defect	R ✓ c
	"	O-166	103a-0	420,649	18° 24'	+6°		A ✓ c
	"	E-166	103a-E	423,886	"	"		A ✓ c
	"	O-167	103a-0	420,649	19° 36'	0°		A ✓ c
	"	E-167	103a-E	423,886	"	"		A ✓ c
July 11/12	Survey	O-168	103a-0	420,649	16° 0'	+12°	seeing of focus worms	A ✓ c
	"	E-168	103a-E	423,886	"	"	guiding, seeing focus, RPH	A ✓ c
	"	O-169	103a-0	420,649	17° 12'	+6°		A ✓ c
	"	E-169	103a-E	423,886	"	"		A ✓ c
	"	O-170	103a-0	420,649	18° 24'	+18°	Non-uniform em. sensitivity, defects	R ✓ c
	"	E-170	103a-E	423,886	"	"		R ✓ c
	"	O-171	103a-0	420,649	19° 36'	+6°		A ✓ c
	"	E-171	103a-E	423,886	"	"		A ✓ c
July 12/13	Survey	O-172	103a-0	420,649	17° 20'	-24°	R	A ✓ c
	"	E-172	103a-E	423,886	"	"		A ✓ c
	"	O-173	103a-0	420,649	18° 38'	-24°	R	A ✓ c
	"	E-173	103a-E	423,886	"	"		A ✓ c
		X-174	103a-E	423,886	20° 5'	-18°		-
	Tests	F-6	103a-E	423,970	16° 18'	+12°	RPH focus	-
	"	F-7	103a-E	423,970	16° 18'	+12°	RPH focus	-
July 13/14	Icarus	PS-379	103a-0	420,649	11° 44'	+8° 49'		-
		O-174	103a-0	420,649	16° 28'	-24°	filter	R ✓ c
		E-174	103a-E	423,886	"	"		R ✓ c
		O-175	103a-0	420,649	19° 46'	-24°		A ✓ c

Run No. 9

OBSERVING LOG

Date	Program	PLATE No.	Emulsion Type	Emulsion No.	$\alpha$	$\delta$	REMARKS	
July 13/14	Survey	O-176	103a-O	420,649	19 <sup>h</sup> 04 <sup>m</sup>	-24°	filter	R <sup>1</sup> c
	"	E-176	103a-E	423,886	"	"		R <sup>1</sup> c
	"	O-177	103a-O	420,649	20 <sup>h</sup> 22 <sup>m</sup>	"	Dense filter	R <sup>1</sup> c
	"	E-177	103a-E	423,886	"	"		R <sup>1</sup> c
	"	O-178	103a-O	420,649	21 <sup>h</sup> 36 <sup>m</sup>	-18°	Dense filter	R <sup>1</sup> c
	"	E-178	103a-E	423,886	"	"	eggs	R <sup>1</sup> c
July 14/15	Icarus	PS-380	103a-E	423,886				—
	Survey	O-179	103a-O	420,649	17 <sup>h</sup> 30 <sup>m</sup>	+42°	diffused filter	R <sup>1</sup> c
	"	E-179	103a-E	423,886	"	"	elongated image	R <sup>1</sup> c
	"	O-180	103a-O	420,649	19 <sup>h</sup> 12 <sup>m</sup>	+12°	filter	R <sup>1</sup> c
	"	E-180	103a-E	423,886	"	"		R <sup>1</sup> c
July 15/16	Icarus	PS-381	103a-E	423,886	12 <sup>h</sup> 44 <sup>m</sup>	+7°		—
	"	PS-382	"	"	"	"		—
	Survey	O-181	103a-O	420,649	16 <sup>h</sup> 30 <sup>m</sup>	+42°	filter worms	R <sup>1</sup> c
	"	E-181	103a-E	423,886	"	"	small eggs	R <sup>1</sup> c
	"	O-182	103a-O	420,649	17 <sup>h</sup> 46 <sup>m</sup>	+30°	filter	R <sup>1</sup> c
	"	E-182	103a-E	423,886	"	"		R <sup>1</sup> c
	"	O-183	103a-O	420,649	19 <sup>h</sup> 12 <sup>m</sup>	+18°	filter	R <sup>1</sup> c
	"	E-183	103a-E	423,886	"	"		R <sup>1</sup> c
	Icarus	PS-383	103a-E	423,970	12 <sup>h</sup> 10 <sup>m</sup>	+5°		—
July 16/17	Focus	E-8	103a-E	423,970	17 <sup>h</sup> 21 <sup>m</sup>	+13°		—
	Survey	O-184	103a-O	420,649	18 <sup>h</sup> 14 <sup>m</sup>	+12°	slight worm	R <sup>1</sup> c
	"	E-184	103a-E	423,886	"	"	Eggs N.W. Corner	R <sup>1</sup> c
	"	O-185	103a-O	420,649	19 <sup>h</sup> 30 <sup>m</sup>	+24°		R <sup>1</sup> c
	"	E-185	103a-E	423,886	"	"		R <sup>1</sup> c
	"	O-186	103a-O	420,649	20 <sup>h</sup> 48 <sup>m</sup>	+24°	Worms R	R <sup>1</sup> c
	"	E-186	103a-E	423,886	"	"		R <sup>1</sup> c
	"	O-187	103a-O	420,649	22 <sup>h</sup> 0 <sup>m</sup>	+18°	Dense	R <sup>1</sup> c
	"	E-187	103a-E	423,886	"	"		R <sup>1</sup> c
	— 2	PS-384	103a-O	428,441	12 <sup>h</sup> 29 <sup>m</sup>	+12°		—
July 17/18	Survey	O-188	103a-O	420,649	17 <sup>h</sup> 0 <sup>m</sup>	+42°	Worms	R <sup>1</sup> c
	"	E-188	103a-E	423,886	"	"	image drift	R <sup>1</sup> c
	"	O-189	103a-O	420,649	18 <sup>h</sup> 48 <sup>m</sup>	-6°	R	R <sup>1</sup> c
	"	E-189	103a-E	423,886	"	"	Worms	R <sup>1</sup> c
	"	O-190	103a-O	420,649	19 <sup>h</sup> 36 <sup>m</sup>	+18°		R <sup>1</sup> c
	"	E-190	103a-E	423,886	"	"		R <sup>1</sup> c



[illegible]

RUN No. 9

PLATE LOG  
July 3 - 24, 1950

BLUE PLATES 103a-0  
ON HAND BEGINNING: 163  
ON HAND END: 122  
Emulsion No. 420,649  
exposed 26  
here 120  
2 missing

INSPECTION			PRE-TEST		OTHER DEFECTS	DATE
TOTAL	GOOD	DEFECTIVE	GOOD	BREAK		
A	B	C	D	E		
3	3	0	3	0		July 6
3	3	0	2	1		July 10
2	2	2 with off-axis 0.00	3	1		July 11
5	4	very small 1 corner chip	5	0		July 12
3	3	0	3	0		July 13
7	7	0	5	2		July 14
1	1	0	1	0		July 15
<del>3</del>	<del>3</del>	0	<del>3</del>	0		July 16
5	5	0	5	0		July 17
4	4	0	3	1		July 18
3	3	0	2	1		July 21
41				5		

$$41 - 5 = 36$$

RUN No. 9

PLATE LOG  
July 3-24, 1950

RED PLATES 103a-E

Emulsion No. 423,886

ON HAND BEGINNING:

44

exposed 38

ON HAND END:

28

6 left have 2 4 missing

INSPECTION			PRE-TEST		OTHER DEFECTS	DATE
TOTAL	GOOD	DEFECTIVE	GOOD	BREAK		
A	8	C	0	E		
2	2	0	2	0		July 6
2	1	1 chipped	2	0		July 7
2	2	0	2	0		July 10
2	2	0	2	0		July 11
5	5	0	5	0		July 12
3	3	0	3	0		July 13
6	6	0	5	1		July 14
6	6	0	5	1	1 broke in telescope	July 15
84	84	0	83	1		July 16
5	5	0	5	0		July 17
<u>3</u>	3	0	3	<u>0</u>		July 18
40				3		

RUN No. 9

PLATE LOG  
July 2-24, 1950

RED PLATES	103a-E	Emulsion No.	423,887
No. Beginning	176	exposed	2
No. End.	173	<del>2</del> 1 missing	

INSPECTION			PRE-TEST		OTHER DEFECTS	DATE
TOTAL	GOOD	DEFECTIVE	GOOD	BREAK		
A	B	C	D	E		
1	1	0	1	0		July 19
1	1	0	1	0		" 20
<u>1</u>	1	0	1	0		" 21
3						



Run No. 9SHIPPING LOG

Box No. 1	O, E.	164, 165, 166, 167, 168, 169	
Box No. 2	O, E	170, 171, 172, 173, 174, 175	181? } Kelly 7/7-50
Box No. 3	O, E	176, 177, 178, 179, 180,	
Box No. 4	O, E	182, 183, 184, 185, 186, 187	
Box No. 5	O, E	188, 189, 190, 191, 192, 193	} Kelly 7/24-50
Box No. 6	O, E,	194, 195,	

Run No. 9

## Supply Records

ON HAND Beginning of Run: July 3, 1950

D-19 36 gal  
 Naccifix 11 gal  
 Naccifix Conc. 24 gal  
 Glacial Acetic Acid 3 1/4 gal  
 Distilled Water 7 gal

Emulsion	48"	200"	open	Total
420,649	40		3	163
423,886	10		4	44
423,887	0	44		176
423,970	12		0	
428,441	2	7		36
428,442	5	20		100

Received 32 gal D-19 July 10

Shipped 4 gal D-19 to 18" July 7  
 2 gal D-19 to 200" July 19

On Hand End of Run: July 24, 1950

D-19 32 gal.  
 Naccifix 9 "  
 Naccifix Conc. 20 "  
 Glacial Acetic Acid 3 1/2 "  
 Distilled Water 7 "

Emulsion	48"	200"	open	Total
420,649	30	0	0 + tested	120
423,886	—	—	1	2
423,887	17	26 Boxes	1 + 1 tested	174
423,970	10	—	2	42
428,441	—	7	2	30
428,442	3	10	2	94

Run No. 10.

## Observing Schedule

48<sup>th</sup> Survey

Aug 3/4 to Aug 23/24, 1950

E = end of  
evening twilight  
D = beginning of  
morning twilight  
Ms = moonset  
Mr = moonrise

Date	Start Work	Stop Work	No. of Plate	No. of Survey	Observer	Remarks
3/4	E: 8:31	Mr: 9:55	4	0	Ha	seeing < 1
4/5	8:30	10:21	6	0	"	seeing 1
5/6	8:29	10:51	2	0	"	" 1 to < 2
6/7	8:28	11:24	1	0	"	" 1 to < 1
7/8	8:27	12:05	1	0	"	" < 1
8/9	8:26	12:52	7	3	"	" 2 to 3
9/10	8:25	1:46	6	3	"	" 2-3
10/11	8:24	2:47	1	0	" Wi	" 2-2
11/12	8:23	D: 3:50	11	5	" "	" 2-4
12/13	8:22	3:51	10	0	" "	" 1-5
13/14	8:21	3:52	10	3	" "	" 1-3
14/15	8:20	3:53	9	0	" "	" 1-3 Partly Cloudy
15/16	8:19	3:54	6	0	" "	" 2-3 Haze
16/17	Ms 8:35	3:55	5	1	" "	" 1-3 Clouds
17/18	8:54	3:56	2	0	" "	" 5 Clouds
18/19	9:27	3:57	8	4	" "	" 1-4 clouds
19/20	10:04	3:58	4	2	" "	" 3-5 clouds
20/21	10:48	3:59	3	1	" "	" 3-5 clouds
21/22	11:40	4:00	2	1	" "	" < 1-3 "
22/23	12:42	4:01	4	2	" "	" 1-4
23/24	1:50	4:02	2	1	" "	" 3
			104	26		

Sept. E 8:00 Mr. 10:45 Ha 4 - 14

Mr. 12:50 D. 4:30 Wi 7 - 21

Run No. 10.

Observing Log:

A = accept  
 R = reject  
 c = card  
 ✓ = final

Aug 3 - 24, 1950

Date	Program	Plate No.	Emulsion Type	Emulsion No.	$\alpha$	$\delta$	Remarks	
Aug. 3/4	ICARUS	PS-396	103a-o	428,441	14 <sup>h</sup> 1 <sup>m</sup> 28 <sup>s</sup>	-12° 28' 50"		
"	S.N.	PS-397	"	"	17 <sup>h</sup> 37 <sup>m</sup> 24 <sup>s</sup>	-33° 57' 0"	4p. 30 Sec.	
"	FOCUS	F-1	103a-E	423,970	18 <sup>h</sup> 11 <sup>m</sup>	+11° 52'	R.P.H. + #2	
"	"	F-2	"	"	"	"	R.P.H. Direct	
Aug. 4/5	ICARUS	PS-398	103a-o	428,441	14 <sup>h</sup> 4 <sup>m</sup> 9 <sup>s</sup>	-13° 56' 30"	"	
"	"	PS-399	"	"	"	"	"	
"	S.N.	PS-400	"	"	18 <sup>h</sup> 30 <sup>m</sup>	-20° 0'	"	
"	"	PS-401	"	"	17 <sup>h</sup> 37 <sup>m</sup>	-33° 57'	"	
"	FOCUS	F-3	103a-E	423,970	18 <sup>h</sup> 5 <sup>m</sup>	+13°	"	
"	"	F-4	"	"	"	"	RPH + #2	
Aug. 5/6	NOVA	PS-402	103a-o	428,441	17 <sup>h</sup> 37 <sup>m</sup> 24 <sup>s</sup>	-33° 57'	RPH direct	
"	"	PS-403	"	"	18 <sup>h</sup> 30 <sup>m</sup>	-20° 0'	"	
Aug. 6/7	"	PS-404	"	"	17 <sup>h</sup> 37 <sup>m</sup> 24 <sup>s</sup>	-33° 57'	"	
Aug. 7/8	"	PS-405	"	"	"	"	"	
Aug. 8/9	"	PS-406	"	"	"	"	"	
"	Survey	O-196	"	420,649	17 <sup>h</sup> 16 <sup>m</sup>	+36°	worms	R ✓ c
"	"	E-196	103a-E	423,887	"	"	eggs - elongated images	R ✓ c
"	"	O-197	103a-o	420,649	18 <sup>h</sup> 12 <sup>m</sup>	"	eggs	A c
"	"	E-197	103a-E	423,887	"	"		A c
"	"	O-198	103a-o	420,649	20 <sup>h</sup> 0 <sup>m</sup>	+42°	repeat	A ✓ c
"	"	E-198	103a-E	423,887	"	"	eggs	A ✓ c
Aug. 9/10	"	O-199	103a-o	420,649	18 <sup>h</sup> 30 <sup>m</sup>	+42°	repeat	A ✓ c
"	"	E-199	103a-E	423,887	"	"		A ✓ c
"	"	O-200	103a-o	420,649	20 <sup>h</sup> 4 <sup>m</sup>	+36°		A ✓ c
"	"	E-200	103a-E	423,887	"	"		A ✓ c
"	"	O-201	103a-o	420,649	20 <sup>h</sup> 24 <sup>m</sup>	+72°	non-uniform sensitivity eggs	R ✓ c
"	"	E-201	103a-E	423,887	"	"	trails, fagged patch	R ✓ c
Aug. 10/11	Nova	PS-407	103a-o	428,441	17 <sup>h</sup> 37 <sup>m</sup> 24 <sup>s</sup>	-33° 57'	RPH direct	
Aug. 11/12	Survey	O-202	103a-o	420,649	19 <sup>h</sup> 12 <sup>m</sup>	+6°	repeat	A ✓ c
"	"	E-202	103a-E	423,887	"	"	H <sub>2</sub> O	A ✓ c
"	"	O-203	103a-o	420,649	19 <sup>h</sup> 56 <sup>m</sup>	+78°		R ✓ c
"	"	E-203	103a-E	423,887	"	"	trails in film	R ✓ c
"	"	O-204	103a-o	420,649	22 <sup>h</sup> 06 <sup>m</sup>	+24°		A ✓ c
"	"	E-204	103a-E	423,887	"	"		A ✓ c
"	"	O-205	103a-o	420,649	0 <sup>h</sup> 0 <sup>m</sup>	+24°		A ✓ c
"	"	E-205	103a-E	423,887	"	"		A ✓ c
"	"	O-206	103a-o	420,649	18 <sup>h</sup> 0 <sup>m</sup>	+0°	ble	A ✓ c



Run No. 10

Date	Program	Plate No.	Emulsion Type	Emulsion No.	$\alpha$	$\delta$	Remarks	
Aug. 11/12	FOCUS	F-5	403a-E	423,970			Filter No. 31	
Aug 12/13	Tests	F-6	103a-E	423,970	21 <sup>h</sup> 26 <sup>m</sup>	+10° 52'	Filter No. 2,	
"	"	F-7	"	"	21 <sup>h</sup> 26 <sup>m</sup>	+10° 52'	Filter No. 31	
"	"	F-8	"	"	21 <sup>h</sup> 26 <sup>m</sup>	+10° 52'	RPH direct	
"	"	F-9	"	"	22 <sup>h</sup> 8 <sup>m</sup>	+14° 23'	Filter No. 31	
"	"	F-10	"	"	22 <sup>h</sup> 8 <sup>m</sup>	+14° 23'	Filter No. 2.	
"	"	F-11	"	"	22 <sup>h</sup> 41 <sup>m</sup>	+10° 41'	RPH direct	
"	"	F-12	"	"	22 <sup>h</sup> 41 <sup>m</sup>	+10° 41'	RPH direct	
"	"	F-13	"	"	22 <sup>h</sup> 41 <sup>m</sup>	+10° 41'	RPH direct	
"	"	T-1	"	"	Polar Alignment Plate			
"	Nova	PS-408	103a-0	428,441	Transfer Plate S.A. 134			
Aug. 13/14	Springs in support system adjusted, because focus plates show a 0.1 mm gradient North to South.							
	Tests:	T-2	103a-E	423,970	Polar alignment plate			
	"	F-14	"	"	Filter No. 2			
	"	F-15	"	"	RPH direct			
	"	F-16	"	"	RPH direct			
photoelectric ca 11.60-11.20	Survey	O-207	103a-0	420,649	20 <sup>h</sup> 30 <sup>m</sup>	+42°	tilt Wrong	R✓c
	"	E-207	103a-E	423,887	"	"	variable Position	R✓c
	"	O-208	103a-0	420,649	22 <sup>h</sup> 0 <sup>m</sup>	-12°		R✓c
	"	E-208	103a-E	423,887	"	"	eggs, seeing	R✓c
	"	O-209	103a-0	420,649	2 <sup>h</sup> 0 <sup>m</sup>	+12°	reconsider	A✓c
	"	E-209	103a-E	423,887	"	"		A✓c
Aug. 14/15.	Focus defining pins moved bottom (North) 0.004 toward mirror							
		East pin	initial	2.666	final	2.670		
		West pin	initial	2.668	final	2.672		
	Tests:	T-3	103a-E	423,970	Polar Alignment			
		T-4	"	"	Pole Trail - slow			
		T-5	"	"	10 <sup>h</sup> slow			
		T-6	"	"	Polar Alignment			
		F-17	"	"	RPH direct	20 <sup>h</sup> 56 <sup>m</sup>	+10° 38'	
		F-18	"	"	"	20 <sup>h</sup> 8 <sup>m</sup>	+55° 52'	
		F-19	"	"	"	21 <sup>h</sup> 7 <sup>m</sup>	+10° 32'	
		F-20	"	"	Filter No. 2	22 <sup>h</sup> 39 <sup>m</sup>	+10° 34'	
		F-21	"	"	"	"	"	
Aug 15/16	<del>Test</del> Nova	P.S. 407.	103a-0	428,441	Transfer plate, S.A. 134			

## Run No. 10.

Date	Program	Plate No.	Emulsion Type	Emulsion No.	$\alpha$	$\delta$	Remarks	
Aug 15/16	Tests	F-22	<del>423,970</del> 103a-E	423,970	Focus	Filter No 31		
	"	F-23	103a-E	"	"	"	"	
	"	T-7	"	"	12 hour skew			
	"	T-8	"	"	Trail and twelve hour skew			
	"	T-9	"	"	Trail vs. H.A.			
Aug 16	4:00 P.M.	Sath screws adjusted in azimuth to south end of move axis 4 flats to west. (Move axis East)						
Aug 16/17	Tests:	T-10	103a-E	423,970	Polar alignment			
	Survey	O-210	103a-O	420,649	19°36'	+12°	clouds	R✓c
	"	E-210	103a-E	423,887	"	"	focus SW corner	R✓c
	Tests	T-11	103a-E	423,970	Polar Alignment			
	"	T-12	103a-E	423,970	12 hour skew			
	Plate T-10 showed hole was too far east. Was moved back 2 flats: between E-210 and T-11							
Aug 17/18	Survey	PS-410	103a-E	423,970	17°47'	-85°18'	clouds	
	"	PS-411	103a-O	428,441	"	"	"	
Aug 18/19	Survey	O-211	103a-O	420,649	20°0'	+84°		R✓c
	"	E-211	103a-E	423,887	"	"	trails focus	R✓c
	"	O-212	103a-O	420,649	21°30'	+42°	focus	R✓c
	"	E-212	103a-E	423,887	"	"	slight trails	R✓c
	"	O-213	103a-O	420,649	22°58'	+24°	slight trails	R✓c
	"	E-213	103a-E	423,887	"	"	scratches egg - LR	R✓c
	"	O-214	103a-O	420,649	0°24'	+6°		R✓c
	"	E-214	103a-E	423,887	"	"	scratches egg	R✓c
Aug 19/20	Survey	O-215	103a-O	420,649	22°58'	+30°	bright sky, LL UL LR	R✓c
	"	E-215	103a-E	423,887	"	"	trails, inner right corner	R✓c
	"	O-216	103a-O	420,649	0°0'	+30°		R✓c
	"	E-216	103a-E	423,887	"	"	egg trails	R✓c
Aug 20/21	Survey	O-217	103a-O	420,649	23°0'	+42°	track in R.A.	R✓c
	"	E-217	103a-E	423,887	"	"	trail in R.A.	R✓c
	Test	T-13	103a-E	423,887	Polar axis Alignment			
Aug 21/22	Survey	Moved 1/2 flat base to east						
	"	O-218	103a-O	420,649	22°0'	+6°		R✓c
	"	E-218	103a-E	423,887	"	"	egg trails	R✓c
Aug 22/23	Survey	O-219	103a-O	420,649	22°30'	+84°	wool, shell	R✓c
	"	E-219	103a-E	423,887	"	"	trails, focus	R✓c

Run No. 10

Date	Program	Plate No.	Emulsion Type	Emulsion No.	$\alpha$	$\delta$	Remarks	
Aug 22/23	Survey	O-220	103a-O	420,649	$0^{\circ}34^m$	$+48^{\circ}$	focus	R✓C
	"	E-220	103a-E	423,887	"	"	trails focus	R✓C
Aug 23/24	Survey	O-221	103a-O	420,649	$0^{\circ}24^m$	$-12^{\circ}$		R✓C
	"	E-221	103a-E	423,887	"	"	trails, eggs,	R✓C

RUN No. 10

PLATE Log.

Aug 3 - 24, 1950.

BLUE PLATES 103a-0

Emulsion No. 420,649

ON Hand beginning  
On hand end.

121

92

29 ✓

Inspection			Pre-Test		Other Defects	Date.
Total	Good	Defective	Good	Break.		
A	B	C	D	E		
2	2	0	2	0		Aug 5
1	1	0	1	0		Aug 8
4	4	0	3	1		Aug 9
1	1	0	1	0		Aug 10
3	3	0	3	0		Aug 11
4	4	0	3	1		Aug 13
2	2	0	2	0		Aug 16
6	6	0	5	1		Aug 17
1	1	0	1	0		Aug 19
3	3	0	3	0		Aug 20
1	1	0	1	0		Aug 21
1	1	0	1	0		Aug 23
29			26	3		



Run No. 10.

PLATE LOG.  
Aug 3 - 24, 1950

RED PLATES		103a-E		Emulsion No.		423,887		
ON HAND BEGINNING:				174				
ON HAND END:				147				
				27 ✓				
INSPECTION			PRE-TEST		OTHER DEFECTS		DATE	
TOTAL	GOOD	DEFECTIVE	GOOD	BREAK				
2	2	0	2	0			Aug 5	
1	1	0	1	0			Aug 8	
3	3	0	3	0			Aug 9	
2	2	0	2	0			Aug 10	
3	3	0	3	0			Aug 11	
3	3	0	3	0			Aug 13	
2	2	0	2	0			Aug 16	
4	4	0	4	0			Aug 17	
1	1	0	1	0			Aug 19	
3	3	0	3	0			Aug 20	
2	2	0	2	0			Aug 21	
1	1	0	1	0			Aug 22	
27	27		27	0			Total	

Run No. 10.

Shipping Log.

Box No. 1.	O, E - 196,	197, 198, 199,	200, 201	} Pasadena
Box No. 2.	O, E - 202,	203, 204, 205,	206, 207.	
Box No. 3.	O, E - 208,	209, 210, 211,	212, 213	} Aug. 17
Box No. 4.	O, E - 214,	215, 216, 217,	218, 219	
Box No. 5.	O, E - 220,	221		

# Run No. 10. Supply Records:

ON HAND Beginning of Run: Aug. 3, 1950

D-19	32 gal.
Naccifix	9 "
Naccifix Conc.	20 "
Glacial Acetic Acid	3 1/2 "
Distilled Water	7 "

	48"	200"	Open	Total
Emulsion				
420,649	30	—	1	121
423,886	—	—	2?	2?
423,887	17	26	2	174
423,970	10	—	2	42
428,441	—	7	2	30
428,442	3	20	2	94

Received. 52 gal. D-19 Aug. 7 (2 gal. to 18" Dome)  
(2 " " 200" " )

Shipped 4 gal D-19 200" Aug 12  
4 gal Naccifix conc. 200" "

On Hand End of Run: August 24, 1950

D-19	29 1/3
Naccifix	6 gal
Naccifix Conc.	11 1/2 gal
Glacial Acetic Acid	3 + gal
Distilled Water	7 gal

	48"	200"	Open	Total
Emulsion				
420,649	23	—		92 ✓
423,886	—	—	2	2 ✓
423,887	11 boxes	2.5 boxes	3	147 ✓
423,970	1 box	—	1	5 ✓
428,441	—	3 boxes	—	12 ✓
428,442	3 boxes	20 boxes	2	94 ✓

Run No. 10

Note: This log is inaccurate  
as under "good" is sometimes  
recorded total

DATE	Emulsion	Good	Broke		Date	Emulsion	Good	Broke	
AUGUST					Aug.				
2	428,441	1	—		17	423,887	4	—	✓
3	"	2	—		"	420,649	5	1	✓
"	423,970	3	—		19	423,887	1	—	✓
4	"	1	—		"	420,649	1	—	✓
"	428,441	4	—		20	423,887	3	—	✓
5	"	2	—		"	420,649	3	—	✓
"	423,887	2	—	✓	21	423,887	2	—	✓
"	420,649	2	—	✓	"	420,649	1	—	✓
6	428,441	1	1		22	423,887	1	—	✓
7	"	1	—		23	420,649	1	—	✓
8	"	1	—						
"	420,649	1	—	✓					
"	423,887	1	—	✓					
9	428,441	1	—						
"	423,887	3	—	✓					
"	420,649	3	1	✓					
10	420,649	1	—	✓					
"	423,887	2	—	✓					
"	423,970	1	—						
11	423,887	3	—	✓					
"	420,649	3	—	✓					
12	423,970	9	—						
"	428,441	1	—						
13	423,970	4	—						
"	420,649	3	1	✓					
"	423,887	3	—	✓					
14	423,970	8	1 broken in box						
"	"	2	—						
15	428,441	1	—						
"	423,970	6	—						
16	423,887	2	—	✓					
"	420,649	2	—	✓					
"	423,970	7	—						
17	423,970	1	—						
17	428,441	1	—						

Totals total Good Breaking

423,887 27 27 0

420,649 29 26 3

423,970 38 37 1

428,441 18 17 1

423,886 includes all

From Observing Log:

15 428,441 6 exposed

86 423,970 5

2 423,886 6

25 423,887 6

26 420,649 6

104

Does not include last 6 gals



Run No. 11

## OBSERVING SCHEDULE

48" Survey  
Sept. 4/5 to Sept. 20/21, 1950E = end of  
evening twilight  
D = beginning of  
morning twilight  
Ms = moon set  
Mr = moon rise

Date	Start Work	Stop Work	No. of Plates	No. of Survey Pairs	Observers	Remarks
4/5	E 7:46 P.M.	Mr. 10:43	2	0	Ha Wi	Smoke - clouds, Seeing 3
5/6	7:45	11:34	1	0	" "	" " Seeing 2+
6/7	7:44	0:31	0	0	" " He, Mi	Overcast
7/8	7:42	1:34	7	0	" " " "	Thin clouds Seeing 1-3+
8/9	7:40	2:40	1	0	" " "	Seeing 1-3
9/10	7:38	3:47	4	0	" " "	" 1-2
10/11	7:37	D 4:22	5	0	" " "	" "
11/12	7:35	4:23	6	0	" " "	" 2-4
12/13	7:33	4:24	3	0	" " "	" < 1-4
13/14	7:31	4:25	4	0	" " "	Haze " < 1-2+
14/15	Ms 7:02	4:26	0	0	" " "	" < 1-3
15/16	8:03	4:27	4	0	" " "	" < 1-3
16/17	8:46	4:28	2	0	" " "	Haze " < 1-2
17/18	9:36	4:29	0	0	" " "	" < 1-2
18/19	10:35	4:30	—	—	" " "	"
19/20	11:41	4:31	—	—	" " "	"
20/21	0:49	4:32	—	—	" " "	"

39

Oct. 2/3 E 7:09 Mr. 9:24 Wi 2-16

Oct. 22/23 Ms 3:57 D 4:45 Ha 9-23

Sept.

Run 11 B

22/23

5

0

Hi, Wi, Ru, He

Variable Seeing 2-4+

23/24

6

0

" " " "

24/25

5

0

" " " "

25/26

1

0

" " " "

## Totals

420,649	3 ✓
423,970	5 ✓
423,886	2 ✓
423,887	3 ✓
428,441	6 <del>1</del>
428,442	20 ✓
<hr/>	
	39

Run No. 11

## Observing Log

A = accept  
R = reject  
c = card  
✓ = final

Sept 4 - 21, 1950

Date	Program	Plate No.	Emulsion Type	Emulsion No.	$\alpha$	$\delta$	Remarks		
Sept 4/5	Tests:	T-1	103a-O	420,649	20 <sup>h</sup> 35 <sup>m</sup>	+18°6'	Image slope Test		
		F-1	103a-E	423,970	23 <sup>h</sup> 57 <sup>m</sup>	+11°24'	Half-Half focus		
		"	"	"	18 <sup>h</sup> 3 <sup>m</sup>	+11°59'	"		
After plate F-1, the focus pins were restored to their original position: East pin 2.666 West pin 2.668									
Sept 4 5/6	Tests:	F-2	103a-E	428,442	19 <sup>h</sup> 27 <sup>m</sup>	+14°20'	Focus RPH direct		
Sept 4 6/7	No	Observations	Mirror support system inspected and adjusted Collimation checked and adjusted						
Sept 4 7/8	Tests:	F-3	103a-O	420,649	Plate shows skewed sequences				
		T-2	103a-O	420,649	constant focus image sequences		Gibbs clamped		
		T-3	103a-E	428,442	1 min exp, 43 off	1 min exp	Gibbs unclamped shows rotation		
		T-4	103a-E	423,886	2 min exp, 42 off	1 min exp	clamped shows rotation		
		T-5	103a-E	423,886	1 min, 10 min, 1 min	clamped	shows slight rotation		
		Center pin	103a-E	423,887	Tightened, one invar rod loosened.				
		T-6	103a-E	423,887	1 min, 43 min, 1 min	Gibbs adjusted			
Sept 4 8/9	Tests	F-4	103a-E	423,887	1 <sup>h</sup> 45 <sup>m</sup>	+16°42'	Focus RPH Direct		
Sept 4 9/10	Tests:	Focal plane redefined:				initial	final		
		East pin				2.666"	2.680"		
		West pin				2.668"	2.672"		
		T	F-5	103a-E	423,970	18 <sup>h</sup> 36 <sup>m</sup>	+15°	RPH Direct	
		T-7	"	"	West of Mer.		Drift plate		
		T-8	"	"	East of Mer.		"		
		T-9	"	"	Near Meridian		"		
		F-6	103a-E	428,442	18 <sup>h</sup> 28 <sup>m</sup>	+16°	RPH Direct		
		T-10	"	"	West of Meridian		Drift Plate		
		T-11	"	"	"		"		
		T-12	"	"	"		"		
		T-13	"	"	"		"		
		Sept 4 11/12	Tests	PS-412	103a-O	428,441	17 <sup>h</sup> 41 <sup>m</sup>	-34°40'	Nova Field
				PS-413	103a-E	428,442	16 <sup>h</sup> 46 <sup>m</sup>	+22°21'	Asteroid 1950LA
				T-14	103a-O	428,442	2 <sup>h</sup> West Plate holder clamped		
T-15	103a-E			428,442	Double drift.				
F-7	"			"	80 ft focus				
		T-16	"	"	Drift Plate				
		Sept 4 12/13	Tests	T-17	103a-E	428,442	Drift Plate: Mirror blocked radially		
T-18	"			"	"	"	" and axially		
T-19	103a-O			428,441	Double	"	"		

# Run No. 11

Date	Program	Plate No.	Emulsion Type	Emulsion No.	$\alpha$	$\delta$	Remarks
Sep't. 13/14		Water Filter changed			T-20	103a-E	Polar Alignment.
	Tests:	T-20	103a-E	428,442	Drift plate:	axial	interior block, NGT
		T-22	"	"	"	"	Interior blocks removed SET
		T-23	"	"	"	"	All blocks removed - old spring SET
Sep't. 14/15	Visual	Observations with Guide Scopes					
		Tests for discrepancies					
Sep't. 15/16	Nova	PS-414	Transfer Plate	S.A. 134			428,441
	1950 LA	PS-415	103a-E	428,442	16 <sup>h</sup> 54 <sup>m</sup>	+22° 38'	
	Test.	T-24	103a-E	428,442	Drift Plate:	NGT	aux eyepiece no det.
	NGC 205	PS-416	Various exposures	on	NGC 205		428,441
Sep't 16/17	Test.	PS-418	103a-E	428,442	Focus Plate		
	NGC 147	PS-419	103a-0	428,441	10 <sup>h</sup> 20 <sup>m</sup> 27 <sup>s</sup>	+48° 15' 16"	various exposures
Sep't 17/18		No observations					



Run No. 11.

Plate Log.

Date	Emulsion	Total	Good	Breaking	Remarks
Sept 4	420,649	2	2	—	
	423,970	1	1	—	
	428,442	1	1	—	
Sept. 7	420,649	2	1	1 broken in box	
"	428,442	1	1	—	
"	423,886	2	2	—	
"	423,887	2	2	—	
Sept '8	423,887	1	1	—	
Sept '9	423,970	4	4	—	
" 10	428,442	4	3	1	
"	"	<del>7</del>	<del>4</del>	—	
Sept 11	428,441	2	2	—	
"	428,442	2	2	—	
Sept 12	428,442	2	2	—	
"	428,441	1	1	—	
Sept 13	428,442	1	1	—	
"	"	3	3	—	
Sept 15	"	2	2	—	
"	428,441	4	<del>4</del>	—	
Sept 16	428,442	1	1	—	
1	428,441	Returned to Open box			
Totals					
	420,649	4	3	1	
	423,970	5	5	0	
	423,886	2	2	0	
	423,887	3	3	0	
	428,442	21	20	1	
	428,441	7	7	0	
		<u>42</u>	<u>40</u>	<u>2</u>	

Run No. 11

## Supply Records

On Hand, Beginning of Run: Sep. 4, 1950

D-19	29 1/3 gal			
Naccodix	6 gal			
Naccodix Conc.	11 1/2 gal			
Glacial Acetic Acid	8+ gal			
Distilled Water	7 gal			
Emulsion	48" → 23 boxes	200" open		Total
420,649	—	—	2	2
423,886	—	—	2	2
423,887	11 boxes	25 boxes	3	147
423,970	1 box	—	1	5
428,441	—	3 boxes	—	12
428,442	3 boxes	20 boxes	2	94

Received:

Shipped: 18" 1 gal D-19 Sep. 4.5  
 " 2 gal D-19 Sep. 7.12

On Hand, End of Run: Sep. 21, 1950

D-19	21 2/3			
Naccodix	5			
Naccodix Conc.	9			
Glacial Acetic Acid	3 gal			
Distilled Water	7 gal			
Emulsion:	48" → 22 boxes	200" open		Total
420,649	—	—	—	88 ✓
423,886	—	—	—	— ✓
423,887	11 boxes	25 boxes	—	147 ✓
423,970	—	—	—	— ✓
428,441	1	—	2	6 ✓
428,442	1	17 boxes	1	73 ✓

+ box  
missing

1 returned

# Observing Log

Run No. 11B - Sep 7 22-

Date	Program	Plate No.	Emulsion Type	Emulsion No.	$\alpha$	$\delta$	Remarks
Sept 22/23	N&T						head re-installed, Objective checked, play removed. Screws on both guide scopes tightened.
	T-1	103a-E	428,442				Drift plate: Horizontal drift.
	T-2	103a-E	"	"	"	"	: Guide bar for plate loading carriage loosened
	T-3	103a-E	428,442				Drift Plate: Comparison of both guide scopes
	T-4	"	"	"	"	"	Spring load tripled
	T-5	"	"	"	"	"	Same as T-4
Sept 23/24	Support System						re-balanced
	T-6	103a-0	428,441				Drift Plate very good
	F-1	103a-0	428,441				Focus Plate R.P.H.
	F-2	103a-E	428,442				Focus Plate Filter N&T
	F-3	103a-0	428,441				Focus Plate @ . @
	T-7	103a-0	428,441				Test: Drift + extrafocal image reset wedges on center pin of mirror support.
	F-8	103a-0	428,441				Drift Plate: East Focus Plate: East
Sept 24/25	Guides for						inner rods loosened.
	T-9	103a-E	428,442				Drift - West
	T-10	103a-E	428,442				Drift - East
	T-11	103a-0	428,441				Set - Seat test.
	T-12	103a-E	428,442				Guide Scope Comparison
	T-13	103a-E	428,442		"	"	"
Sept 25/26	Objectives of both guide scopes						secured.
	T-14	103a-E	428,442				Drift OK, (One plate taken with cover on)
Oct. 18/19	Focus	F-9	103a-E	428,442			Focus Plate R.P.H.
"	Focus	F-10	"	"	"	"	"
"	Drift	T-15	"	"	1 <sup>h</sup> 35 <sup>m</sup>	+ 21 <sup>s</sup>	"
"	"	T-16	"	"	3 <sup>h</sup> 31 <sup>m</sup>	+ 24 <sup>s</sup>	"
"	"	T-17	"	"	6 <sup>h</sup> 0 <sup>m</sup>	+ 20 <sup>s</sup>	"
Oct. 19/20	"	T-18	"	"	0 <sup>h</sup> 29 <sup>m</sup>	+ 19 <sup>s</sup>	"
"	"	T-19	"	"	3 <sup>h</sup> 18 <sup>m</sup>	+ 20 <sup>s</sup>	"
"	"	T-20	"	"	1 <sup>h</sup> 44 <sup>m</sup>	+ 46 <sup>s</sup>	"

Between runs one other plate spoiled

Moved telescope 180°  
F104 East by 2 star method  
Oct. 19, 1950

Mirror blocked at 3 points  
all over

# Supply Record: Run No. 11B

On Hand, Beginning of Run: Sep't. 22, 1950

O-19	2 1/2 gal	Distilled Water	7 gal
Naccodix	5		
Naccodix Conc.	9		
Glacial Acetic Acid	3 gal		
Emulsion	48"	200"	Open
420,649	22	-	-
423,887	11	25	144
428,441	1		6
428,442	1	17	1
			73

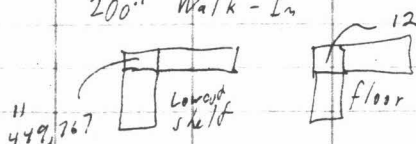
Received Sep't. 23. 32 gal O-19 12 gal Naccodix Conc.  
8 gal Naccodix

17 boxes 428,442 moved from 200" dome:  
25 boxes 423,887 moved from 200" dome.

Received Sep't 23, 1950:

103a-E 449,766 43 boxes  
449,767 33 boxes  
449,768 29 boxes  
35 boxes  
96 boxes = 321 boxes

200" Walk-In



Shipped:

On Hand: End of Run: Sep't.

O-19	54 gal	Distilled Water	7 gal
Naccodix	10 gal	Glacial Acetic Acid	3 gal
Naccodix Conc.	21 gal		
Emulsion	48"	200"	Open
420,649	22	-	-
423,887	11	25	144
428,441	-	-	-
428,442	15	-	61
449,667	-	96	-
449,766	-	43	-
449,767	-	33	-
			384
			172
			132

1 box  
6 boxes  
11 boxes



plate Log.

Date	Emulsion	Total	Good	Defective	Remarks
Sep't 22	428,442	5	5	-	
Sep't. 23	428,441	5	5	-	
"	428,442	1	1	-	
Sep't. 24	428,441	1	1	-	
"	428,442	5	5	-	
Sep't 25	428,442	2	2	-	

Run No. 12

48" Survey  
OBSERVING SCHEDULE

Oct. 2/3 - Oct 22/23, 1950

E = end of evening  
twilight  
D = beginning of morning  
twilight

Ms = moon set

Mr = moon rise

Date	Start Work	Stop Work	No. of Plates	No. of Perry Pair	Observer	N. A.	Remarks	Sky	Seeing
Oct. 2/3	E 7:06	Mr: 9:24	7	0	Wi	St	clear		2-3+
3/4	7:04	10:18	4	0	"	"	Thin clouds		2-3+
4/5	7:02	11:18	0	0	"	"	smoke		2-3+
5/6	7:00	12:21	3	0	" He	"	clear		1-2+
6/7	6:59	1:27	5	0	" "	"	clear		2-5
7/8	6:58	2:33	4	0	" "	"	clear		3-5
8/9	6:57	3:39	5	0	" "	"	clear		2-7
9/10	6:56	D 4:38	-	-	" Ha	(Repair)	No Observations		
10/11	6:55	4:38	-	-	" "	"	No Observations		
11/12	6:54	4:39	5	0	" "	St	clear		1-3
12/13	6:53	4:39	-	-	" "		No Observations		
13/14	<del>6:52</del>	4:40	0	0	" "		} worked on mirror support system		
14/15	Ms 7:29	4:41	0	0	" "				
15/16	8:27	4:41	0	0	" "				
16/17	9:32	4:42	0	0	" "				
17/18	10:41	4:43	0	0	" "				
18/19	11:49	4:43	5	0	"	clear			3-4
19/20	12:56	4:44	3	0	"	"	wind		2-3
20/21	1:58	4:44	3	0	"	"	"		1-2
21/22	2:59	4:45	3	0	"	Wind, clouds			<1
22/23	3:57	4:45			"				
			47						

Oct 30/31 E 6:34 Monday Mr 8:11

Ha Oct 30 - Nov. 13

Nov. 19/20 Mr 2:51 Monday D 5:10

Wi Nov 6 - Nov. 20

Run No. 12

## Observing Log

A = accept  
R = reject  
C = card  
✓ = final

Oct. 2 - Oct 23, 1950

Date	Program	Plate No.	Emulsion Type	Emulsion No.	$\alpha$	$\delta$	Remarks
Oct 2/3	Tests:	F-1	103a-E	428,442	Focus	Plate RPH	
		F-2	"	"	"	" "	
		F-3	"	"	"	" "	
		F-4	"	"	"	" BPH	
		T-1	"	"	Centering	Plate	
		T-2	"	"	Drift	Plate $\pm 20^\circ$ , $2^h m$	
		T-3	"	"	Drift	Plate $\pm 20^\circ$ , across Meridian	
Oct 3/4	Tests:	South guide scope centered with NGT					
		T-4	103a-E	428,442	Drift	plate east	
		F-5	"	"	BPH	focus plate	
		F-6	"	"	Filter #32	focus plate	
		F-7	"	"	" #27	" "	
		Plate	"	"	mis-exposed		
Oct 4/5	Visual Tests	comparing both guide scopes:					
Oct 5/6	NGT adjusted:						
		T-5	103a-E	428,442	RPH	drift plate	
		T-6	"	"	BPH	" "	
		T-7	"	"	BPH	" "	
Oct. 6/7	Tests:	T-8	103a-0	420,649	RPH	drift plate clamped	
		T-9	103a-E	428,442	RPH	drift plate	
		T-10	103a-0	420,649	RPH	time plate	
		T-11	"	"	RPH	Center pin tightened	
		T-12	"	"	RPH	3 clamps	
Oct 7/8	Tests:	T-13	103a-E	428,442	RPH	Drift rods tightened	
		T-14	"	"	"	" spider tightened	
		T-15	"	"	"	" E Mirror blocked	
		T-16	103a-E	423,887	"	" W Mirror Blocked	
Oct 8/9	Tests:	F-8	"	"	"	Focus plate	
		T-17	103a-E	423,887	"	Drift plate	
		T-18	"	"			
		T-19	103a-0	420,649	$1^h 32^m$	$+34^\circ 51'$	12 min Test plate
		T-20	"	"			
Oct 9/10	Tests:	No Observations					
Oct 10/11							

Run No. 12

## OBSERVING Log

A = accept  
R = reject  
C = card  
✓ = final

Oct 2 - Oct 23, 1950

Date	Program	Plate No.	Emulsion Type	Emulsion No.	$\alpha$	$\delta$	Remarks
Oct 11/12	Tests	T-21	103a-E	428,442	Drift	plate with	gag readings
		T-22	"	"	"	"	"
		T-23	"	"	"	"	"
		T-24	"	"	0 <sup>h</sup> 55 <sup>m</sup>	+21°	40min exp
		T-25	"	"	Drift	plate with	gag readings
Oct. 12 To 16	no observations						
" 16 To 18	Worked on Mirror Supports						
Oct. 18/19	Tests	F-9	103a-E	428,442	Focus	Plate - RPK	
		F-10	"	"	"	"	"
		T-15	"	"	1 <sup>h</sup> 35 <sup>m</sup>	+21°	"
		T-16	"	"	3 <sup>h</sup> 31 <sup>m</sup>	+24°	Mirror blocked at 3 points
		T-17	"	"	6 <sup>h</sup> 0 <sup>m</sup>	+20°	Mirror blocked all over
Oct. 18/19		T-18	"	"	0 <sup>h</sup> 29 <sup>m</sup>	+19°	" (Moved Polar Axis one
		T-19	"	"	3 <sup>h</sup> 18 <sup>m</sup>	+20°	BPH First East by Two-
		T-20	"	"	1 <sup>h</sup> 44 <sup>m</sup>	+46°	" Star Method
Oct. 20/21		T-21	103a-E	422,649	0 <sup>h</sup> 12 <sup>m</sup>	+20°	"
		T-22	"	"	1 <sup>h</sup> 20 <sup>m</sup>	+20°	"
		T-23	"	"	2 <sup>h</sup> 55 <sup>m</sup>	+20°	"
Oct. 21/22		T-24	103a-E	428,442	2 <sup>h</sup> 26 <sup>m</sup>	+23°	"
		T-25	"	"	4 <sup>h</sup> 25 <sup>m</sup>	+21°	"
Oct. 22/23		T-26	"	"	3 <sup>h</sup> 08 <sup>m</sup>	+46°	"



Run No. 12

## Supply Records

On Hand:	Beginning of Run:	Oct. 2, 1950			
D-19	51 gal		Glacial Acetic Acid	3 gal	
Naccodix	10 gal		Distilled Water	7 gal	
Naccodix Conc.	21 gal				
Emulsion	48"	200"	Open		Total
420,649	22	-	-		88
423,887	35	-	-		144
428,441	-	-	-		0
428,442	15	-	-		60
449,766	-	42	-		168
449,767	-	31	-		124
449,768	-	28	-		112
449,667	-	95	-		380

1 box  
missing

Received

Shipped: Oct. 3 8 gal 0-19 to 200"

On Hand:	End of Run:	Oct 23, 1950			
D-19	37 gal.		Glacial Acetic Acid	3 gal.	
Naccodix	8 gal.		Distilled Water	7 gal.	
Naccodix Conc.	15 gal				
Emulsion	48"	200"	Open		Total
420,649	19	-	3		79
423,887	35	-	-		140
<del>428,441</del>					
428,442	5	-	1		21
449,766		42	-		168
449,767		32	-		128
449,768		27	-		108
449,667		95	-		380

Run No. 12

## Plate Log

Date	Emulsion	Tested To fail	Good	Breaking	Remarks		
Oct. 2	428,442	7	7	—			
Oct. 3	"	5	5	—			
Oct. 5	"	4	4	—			
Oct. 6	420,649	4	4	—			
Oct. 7	428,442	4	3	1			
"	423,887	1	1	—			
Oct. 8	"	3	3	—			
"	420,649	2	2	—			
Oct. 11	428,442	5	5	—			
Oct. 18	"	2	2	—			
"	"	2	2	—			
"	"	3	3	—			
Oct. 19	"	1	1	—			
Oct. 20	420,649	2	2	—			
"	"	1	1	—			
Oct. 21	428,442	3	3	—			
Oct. 22	"	3	2	1			

Run No. 13 48" Survey  
Observing Schedule  
Oct. 30/31 to Nov. 19/20-50

E = End of evening twilight  
D = morning twilight  
M<sub>s</sub> = moonset  
M<sub>r</sub> = moonrise

Date	Start Work	Stop Work	No. of Plates	No. of Survey Pair	Observers	Remarks	sky	Seeing
Oct. 30/31	E=6:35	M <sub>r</sub> =8:10	0	0	Ha.	Parts in shop.		
Oct. 30/ Nov. 1	6:33	9:07	4	0	"			1
Nov. 1/2	6:31	10:08	0	0	"		high wind	< 1
2/3	6:30	11:10	0	0	"		"	< 1
3/4	6:29	12:00	0	0	"		"	< 1
4/5	6:28	1:18	4	0	"			1 to 5
5/6	6:27	2:24	3	0	"			< 1 to 3
6/7	6:26	3:33	0	0	" Wi.	Visual obs.		< 1 to 3
7/8	6:25	4:43	0	0	" "	Visual obs. (external)		
8/9	6:23	D=4:28	1	0	" "	Thin clouds		2- to 4
9/10	6:22	4:35	0	0	" "		High Wind	< 1
10/11	6:21	4:40	0	0	" "		"	< 1
11/12	M <sub>s</sub> =6:12	4:45	2	0	" "			1-3
12/13	7:17	4:50	0	0	" "	Thin clouds		1
13/14	8:28	4:53	0	0	" "	Storm - overcast		
14/15	9:39	4:55	0	0	" "	Storm - overcast		
15/16	10:47	5:00	0	0	" "	overcast		
16/17	11:52	5:05	2	0	R, H, W	Clear		1
17/18	12:53	5:08	3	0	" " "	Wet <del>stagnant</del>		2
18/19	1:52	5:10	0	0	" " "	Storm		-
19/20	2:50	5:12	0	0	" " "	Storm		
20/21	-	-	5	0	" " "	Clear		1-3
			24					
Dec Run								
Nov 30 - Dec 11			Harrington					
Dec 17-20			Wilson					

Run No. 13      Observing Log

A = Accept  
R = Reject  
C = Card  
✓ = final

Oct. 30 - Nov. 19 - 1950

Date	Program	Plate No.	Emulsion Type	Emulsion No.	$\alpha$	$\delta$	Remarks
Oct. 30/1		No Observations					(Parts in Shop)
Oct. 31/Nov. 1	Test	F-1	103a-E	428,442	21 <sup>h</sup> 40 <sup>m</sup>	+10°	RPH Seeing 1
	"	F-2	"	"	22 <sup>h</sup> 19 <sup>m</sup>	+12°	"
	"	T-1	"	"	1 <sup>h</sup> 5 <sup>m</sup>	+20°	"
	"	T-2	"	"	3 <sup>h</sup> 6 <sup>m</sup>	+20°	"
Nov. 1/2	—	No observations - Visual alignment of Polar axis					< 1
" 2/3	—	"	"				High winds < 1
" 3/4	—	"	"				" < 1
" 4/5	Test	T-3	103a-o	420,649	23 <sup>h</sup> 23 <sup>m</sup>	+24°	1 to 5
"	"	T-4	"	"	22 <sup>h</sup> 10 <sup>m</sup>	+44°	"
"	"	T-5	"	"	23 <sup>h</sup> 56 <sup>m</sup>	+46°	"
"	"	T-6	"	"	2 <sup>h</sup> 33 <sup>m</sup>	+42°	"
Nov. 5/6	"	T-7					1-2
"	"	T-8					3
"	"	T-9					3
Nov. 6/7	"	Visual Observations					
Nov. 7/8	"	Visual Observations					
		Wedges between ring girder and knife edges					
Nov. 8/9	"	T-10	103a-E	428,442	Q-plate: 4, 45 minute drift.		
Nov. 9/10	"	Visual Observations					
Nov. 10/11	"	"	"	"			
Nov. 11/12	"	T-11	103a-E	428,442	Q-plate		
	"	T-12	103a-E	428,442	Drift plate.		
Nov. 12/13	"	Visual Observations					
Nov. 13/14	"	"	"	"			
Nov. 14/15	"	"	"	"			
Nov. 15/16	"	No Observations					
Nov. 16/17	"	F-3	Focus Plate	103a-E	428,442		
	"	T-13	3 hour Drift	103a-E	428,442	NW	
Nov. 17/18	"	T-14	3 hour Drift	103a-E	428,442	SE	
	"	T-15	North & South	Drift.	103a-E	428,442	
	"	T-16	3 hour Drift.	103a-E	428,442	SW	
Nov. 18/19	"	Tests					
Nov. 19/20	"	Tests					



Run. No. 13

Date	Program	Plate No.	Emulsion Type	Emulsion No.	$\alpha$	$\delta$	REMARKS
Nov. 20/21	Tests.	T-17	103a-0	420,649	NW		clamped & wedged
	"	T-18	103a-0	420,649	NW		clamped, no wedge
	"	T-19	103a-0	420,649	NW		no clamp, no wedge
	"	T-20	"	"	NW		"
	"	T-21	"	"	NW		Rubberized Rods.

17 should show smaller no trails  
 18 " " big trails  
 19 " " big trail  
 20 " " big trails

Run #13, Nov. - 1950

Date	Emulsion	Total Tested	Good	Breaking	Remarks			
Oct. 31	428,442	4	4	-				
Nov. 4	420,649	4	3	1				
" 5	"	2	2	-	428,442	Total	good	breaking
" 5	428,442	1	1	-	420,649	13	13	0
" 8	"	1	1	-		<del>8</del>	<del>8</del>	<del>1</del>
" 9	"	1	1	-		<del>10</del>	<del>9</del>	<del>1</del>
" 11	"	1	1	-		11	10	1
" 12	"	1	1	-				
" 16	"	2	2	-				
" 17	"	2	2	-				
" 20	420,649	<del>2</del>	<del>2</del>	-				
		5	5					

Dev. 62 gal

887 - 35

442 2

649 - 17 + 2

Run No. 13

## Supply Record

On hand beginning of Run: Oct. 30, 1950

~~Recd.~~  
Oct. 25, 1950

D-19	69	gal	Glacial Acetic Acid	3 gal	
Naccifix	16	"	Distilled Water	7 "	
Nacca Conc.	27	"			
Emulsion	48 <sup>+</sup>		200 <sup>+</sup>	open	Total
420,649	19		—	3	79
423,887	35		—	—	140
428,442	5		—	1	21
449,766	—		42	—	168
449,767	—		32	—	128
449,768	—		27	—	108
449,667	—		95	—	380

On Hand - end of run

Nov. 21, 1950

D-19 62 gal  
 Naccifix 16 1/3 gal  
 Naccifix-Conc. 27?  
 Glacial Acetic Acid 3 gal  
 Distilled Water 7 gal

Emulsion	48"	200"	open	Total
420,649	17	—	<del>168</del>	70 68 67
423,887	35	—	—	140
428,442	2	—	—	8
449,766	—	42		168
449,767	—	32		128
449,768	—	27		108
449,667	—	95		380



Run No. 14.

48" Schmidt  
Observing Schedule  
Nov 30/Dec 1 to Dec 19/20

E = end of evening twilight  
D = Dawn  
Ms = Moonset  
Mr = Moonrise

Date	Start Work	Stop Work	No of Plates	No. of Survey Pairs	Observer	Remarks	Sky	Seeing
Nov 30/Dec 1	E = 6:21	Mr = 10:03 <sup>P.M.</sup>	0	0	H	Assembled Clamps -	West Wind	<1 wet
Dec 1/2	"	11:05	0	0	H	"	"	<1
2/3	"	12:06 <sup>A.M.</sup>	3	0	H	collimated	Clouds	1-3
3/4	"	1:12	0	0	H	SE corner	Storm	
4/5	"	2:19	0	0	H		Clouds	<1
5/6	"	3:31	2	0	H			<1 to 1+
6/7	"	4:46	2	0	H		Variable	<1 to 2+
7/8	6:22	D = 5:21	8	0	H, Wi		Milky	<1 to 4
8/9	"		13	5	" "		Clear	2 to 5+
9/10	"		<del>13</del> 5	<del>5</del> 1	" "		Clear during 1st	
10/11	Ms = 6:04	D = 5:25	7	3	" "		Clear: Clouded during P.M.	2-4
11/12	7:18 <sup>P.M.</sup>		0	0	—	Clouds -	No Observations	
12/13	8:31		1	0	Wi	Clouds		1-2
13/14	9:39		0	0	"	Clouds		<1
14/15	10:43		0	0	"	Clouds		—
15/16	11:44		0	0	"	Thin haze		1
16/17	12:43	5:27	2	0	"	"		1-2
17/18	1:41		0	0	"	Thin haze, clouds		1
18/19	2:39		2	1	"	wet, about clear		3
19/20	3:37		0	0	"	thin clouds		2-3
			485	10				

## Run No. 14 - Observing Log.

Nov 30 - Dec 20, 1950

A  
R  
C  
✓: Final

Date	Program	Plate No.	Emulsion Type	Emulsion No.	$\alpha$	$\delta$	Remarks	
Dec. 10/11	Test.	Q-E-2	103a-E	449,766	S. H. 68	Exposure Time Test.		
"	Survey	O-228	103a-D	420,649	4 <sup>h</sup> 20 <sup>m</sup>	+24°		A ✓ c
"	"	E-228	103a-E	423,887	"	"		A ✓ c
"	"	O-229	103a-D	420,649	6 <sup>h</sup> 0 <sup>m</sup>	+6°		A ✓ c
"	"	E-229	103a-E	423,887	"	"		A ✓ c
"	"	O-230	103a-D	420,649	6 <sup>h</sup> 24 <sup>m</sup>	+18°	clouds	R ✓ c
"	"	E-230	103a-E	423,887	"	"	"	R ✓ c
Dec 11/12	No	Observations						
Dec 12/13	Tests	T-7	103a-E	423,887	Polar	Alignment.		
Dec 13/14	No	Observations						
Dec 14/15	No	Observations						
Dec 15/16	No	Observations						
Dec 16/17	Tests	F-13	103a-D	420,649	Focus Plate PH4			
"	"	F-14	103a-D	420,649	Focus Plate PH3			
Dec 17/18	No	Observations						
Dec 18/19	Survey	O-231	103a-D	420,649	11 <sup>h</sup> 0 <sup>m</sup>	+42°	seeing	R ✓ c
"	"	E-231	103a-E	449,766	"	"	spotty emulsion	R ✓ c
Dec 19/20	No	Observations						
				Totals	428,442	8		
					423,887	20		
					420,649	14	1 broken in plate hole	
					449,766	3		
						45		

# Run # 14 Supply Record

On hand beginning of run - ~~Nov~~ Nov. 30, 1950

D-19	<del>58</del> 62 Gal.				
Naccofix	13 "				
Naccofix-Conc.	27 "				
Acetic Acid	3 "				
Dist. Water	7 "				
	48"	100"	open	Total	
420,649	16	-	3	67	
423,887	35	-	-	140	
428,442	2	-	-	8	
449,766	-	42		168	
449,767	-	32		128	
449,768	-	27		108	
449,667	-	95		380	

Dec. 8. 1 gal D-19 to 18" Dome

Dec. 9. 4 gal D-19 to 200" Dome. & 1 gal 28% Acetic Acid

Received:

106 boxes = 35 1/3 doz 103a-0 plates Dec 12. Emulsion No. 458,884  
 = 424 plates: 1 other box (4 plates) sent to Miller)  
 4 boxes to 48" dome  
 previously 1 box of (449,667) and 1 box 449,766 to 48" dome  
 later 103a-0 to Pasadena

End of Run:

D-19	47 gal	Naccofix 11 gal	Conc.	25 gal	Acetic Acid 3	Outfilled water 7
	48"		200"	open	Total	
420,649	48		-	3	51	
423,887	120		-	-	120	
449,667			94?		376?	
449,766			41 boxes		164	
449,767			32 boxes		128	
449,768			27 boxes		108	
458,884	4		102 boxes	4	408	

Shipping List:

6 pair plates via Kelly Dec. 11, 1950

4 pair plates via Bowen Dec. 20, 1950



Run No 15.

48 " Schmidt  
Observing Schedule  
Dec 30/31, 1950 to Jan 17/18, 1951

E = end of evening twilight  
D = down  
Ms = moonset  
Mr = moonrise

Date	Start Work	Stop Work	No. of Plates	No. of Sunny Pair	Observer	Remarks	Sky	Seeing
Dec 30/31	E: 6:30	Mr: 23:02	0	0	Wi		Overcast	<1
Dec 31/Jan 1	"	12:05	0	0	"		Partly cloudy	<1
Jan 1/2	"	1:12	3	0	"		thin haze	1
2/3	"	2:22	0	0	"		Overcast	1-2
3/4	"	3:37	5	2	"		wet clouds	1-2
4/5	"	4:52	0	0	"		Wet	<1
5/6	"	D: 5:38	0	0	"	N.E. wind	clear	<1
6/7	"	"	1	0	"	strong S.E. wind	clear	<1 to 1
7/8	"	"	0	0	"	" " "	overcast	<1
8/9	"	"	0	0	Ha	" N.W. "	"	<1
9/10	Ms: 7:18	5:35	0	0	"	" S.E. "	"	
10/11	8:26	"	0	0	"	" " "	Storm	
11/12	9:31	"	0	0	"	" " "	"	
12/13	10:32	"	0	0	"	Clear, Seeing	<1	
13/14	11:31	"	0	0	"	" " "	<1 to 1	
14/15	12:30	"	0	0	"	High thin clouds, Seeing	2-3-1	
15/16	1:28	"	0	0	Wi	clouds	seeing	1
16/17	2:27	"	2	0	"	clear		1- to 1
17/18	3:26	"	0	0	"	thin haze		<1
			11	2				

Run 16

Mon, Jan 29 - Mon Feb 5

~~Mon~~ Harrington

Mon, Feb 5 - Wed Feb 14

Wilson

## Run No. 15

## Observing Log

A = accept  
R = reject  
c = card  
✓ = final

Dec 30 - Jan 18 1950/1951

Date	Program	Plate No.	Emulsion Type	Emulsion No.	$\alpha$	$\delta$	Remark		
Dec 30/31		No	Observations						
Dec 31/Jan 1		No	Observations						
Jan 1/2	Grid	G-1	103a-0	420,649	-	+24°			
		G-2	103a-0	420,649	-	+30°			
		G-3	103a-0	420,649	-	+36°			
Jan 2/3		No	Observations						
Jan 3/4	Test	Q-0-1	103a-0	458,884	S.A. 68	Q plate			
	Survey	O-232	103a-0	420,649	4 <sup>h</sup> 0 <sup>m</sup>	0°	seeing	A	✓ c
		E-232	103a-E	449,766	"	"	"	A	✓ c
		O-233	103a-0	420,649	9 <sup>h</sup> 36 <sup>m</sup>	+6°	seeing	A	✓ c
		E-233	103a-E	449,766	"	"	contamin?	A	✓ c
Jan 4/5		No	Observations						
Jan 5/6		No	Observations						
Jan 6/7	Special	PS-421	103a-0	458,884	M33				
Jan 7/8		No	Observations						
Jan 8/9		"	"						
Jan 9/10		"	"						
" 10/11		"	"						
" 11/12		"	"						
" 12/13		"	"						
" 13/14		"	"						
" 14/15		"	"						
Jan 15/16		"	"						
Jan 16/17	Special	PS 422	103a-0	420,649	12 <sup>h</sup> 57 <sup>m</sup>	+28° 21'	Coma Cluster - Extra Focal		
		PS 423	"	"	Q-Plate		Coma, V. Maj. I, V. Maj. II, Cor. Bar. Clus.		
Jan 17/18		No	Observations						
			Totals	420,649	7				
				458,884	2				
				449,766	2				
					11				

Run No. 15.

# Supply Record

On Hand beginning of run: Dec 30, 1950

[illegible]

Shipping list.

2 pair via truck Jan 18, 1951



Run No. 15

Plate Log

Dec 29/30, 1950 - Jan 17/18, 1951

Emulsion Type	Emulsion Number	Date	Total	Broke	Good	Remarks
103a-0	420,649	Jan 1	3	0	3	
103a-0	458,884	Jan 3	1	0	1	
103a-0	420,649	"	2	0	2	
103a-E	449,766	"	2	0	2	
103a-0	458,884	Jan 6	1	0	1	
103a-0	420,649	"	2	0	2	1 chipped in corner
103a-E	449,766	"	2	0	2	1 chipped on edge
Totals			Total	Broke	Good	
420,649			7	0	7	
458,884			2	0	2	
449,766			4	0	4	
			13			

48" Schmidt  
Run No. 16 Observing Schedule

Jan. 29/30 - Feb. 13/14, 1951

E = End of evening Twilight

D = Dawn

M<sub>s</sub> = Moonset

M<sub>r</sub> = Moonrise

Date	Start Work	Stop Work	No. of Plates	No. of Survey Pair	Observers	Remarks	Sky	Seeing
Jan. 29/30	E = 6:55	M <sub>r</sub> = 12:11	0	0	Ha	Storm		
30/31	6:56	1:22	0	0	"		"Muddy"	<1
Jan 31/Feb 1	6:57	2:34	0	0	"		"	<1 to 1
Feb 1/2	6:58	2:45	3	0	"		Clear	<1 to 1
2/3	6:58	4:49	1	0	"		Thin Clouds	Variable
3/4	6:59	D = 5:27	15	7	"	/	Clear	1- to 3
4/5	6:59	5:27	4	0	"		"	<1 to 1
5/6	7:00	5:26	1	0	Wi		"	<1 to 1
6/7	<del>M<sub>s</sub></del> 7:00	5:26	0	0	"		"	<1 to 1
7/8	M <sub>s</sub> 7:10	5:26	4	2	"	1/2	Thin Clouds	2-3
8/9	8:15	5:26	2	0	"		"	2
9/10	9:17	5:25	7	3	"	1/2	Partly Cloudy	<2-4
10/11	10:16	5:25	0	0	"		Partly Cloudy	<1
11/12	11:16	5:25	0	0	"		Fog	0
12/13	12:16	5:25	0	0	"		Fog	<1
13/14	1:16	5:24	0	0	"		haze	<1
			37	12		good nights	2	

Run 17 Mon Feb 26 - Thurs. Mar. 15

Mon Feb 26 - Mon Mar 5  
Wed Feb 28 - Wed Mar 7 - Wi  
Wed Mar 7 - Thurs. Mar. 14 - Ha

Run No. 16.

## Observing Log

A = accept  
R = reject  
C = card  
✓ = fine

Jan 29 - Feb 14, 1951

Date	Program	Plate No.	Emulsion Type	Emulsion No.	$\alpha$	$\delta$	Remarks	
Jan. 29/30	Survey	No observations					Starry	
30/31	"	"	"				Thin Clouds	
Jan. 31/Feb. 1	"	"	"				"	"
Feb. 1/2	Zwicky	PS-424	103a-0	458,884	1 <sup>h</sup> 56 <sup>m</sup> 20 <sup>s</sup>	-3°0'10"	Clear - Seeing <1	
"	"	PS-425	"	"	3 <sup>h</sup> 16 <sup>m</sup> 30 <sup>s</sup>	-3°1'23"	"	<1
"	"	PS-426	"	420,649	4 <sup>h</sup> 12 <sup>m</sup> 44 <sup>s</sup>	-16°18'19"	"	<1
Feb. 2/3	"	PS-427	"	"	3 <sup>h</sup> 33 <sup>m</sup> 28 <sup>s</sup>	-5°17'24"	Clouds	Variable
" 3/4	"	PS-428	"	"	3 <sup>h</sup> 34 <sup>m</sup>	-17°37'		
"	Survey	O-234	"	"	3 <sup>h</sup> 36 <sup>m</sup>	+6°	worms, contours	R C
"	"	E-234	103a-E	449,776	"	"	contours	R C
"	"	O-235	103a-0	420,649	4 <sup>h</sup> 0 <sup>m</sup>	+6°	worms, eggs	R C
"	"	E-235	103a-E	449,776	"	"		R C
"	"	O-236	103a-0	420,649	8 <sup>h</sup> 0 <sup>m</sup>	+18°	eggs	R C
"	"	E-236	103a-E	449,776	Plat broken in holder		Emul. def. seeing	R C
"	"	O-237	103a-0	420,649	9 <sup>h</sup> 06 <sup>m</sup>	+24°		A C
"	"	E-237	103a-E	449,776	"	"	eggs	A C
"	"	O-238	103a-0	420,649	10 <sup>h</sup> 24 <sup>m</sup>	+12°	contours	A C
"	"	E-238	103a-E	449,776	"	"		A C
"	"	O-239	103a-0	420,649	11 <sup>h</sup> 42 <sup>m</sup>	+30°	emulsion defects	R C
"	"	E-239	103a-E	449,776	"	"	Turnip due to turning eyepiece	R C
"	"	O-240	103a-0	420,649	13 <sup>h</sup> 02 <sup>m</sup>	+48°	clouds?	A C
"	"	E-240	103a-E	449,776	"	"		A C
Feb. 4/5	Zwicky	PS-429	103a-0	420,649	3 <sup>h</sup> 50 <sup>m</sup> 13 <sup>s</sup>	-5°30'34"	Seeing <1	
"	"	PS-430	"	"	2 <sup>h</sup> 29 <sup>m</sup> 32 <sup>s</sup>	+19°47'59"	" <1	
"	"	PS-431	"	"	8 <sup>h</sup> 17 <sup>m</sup> 26 <sup>s</sup>	+20°54'24"	" 1	
"	Ha Survey	PS-432	103a-E	449,776	5 <sup>h</sup> 32 <sup>m</sup>	-5°	" <1/2/1	
Feb. 5/6	W	PS-433	103a-0	458,884	13 <sup>h</sup> 27 <sup>m</sup>	+45°	<1 to 1+	
Feb 6/7		No observations						
Feb 7/8	Survey	O-241	103a-0	458,884	4 <sup>h</sup> 0 <sup>m</sup>	+12°	clouds	R C
"	"	E-241	103a-E	449,766	"	"	emulsion defect - crack	R C
"	"	O-242	103a-0	458,884	10 <sup>h</sup> 50 <sup>m</sup>	+30°	emul. clouds	R C
"	"	E-242	103a-E	449,766	"	"	rest	R C
Feb 8/9	Guiding Test	T <sub>2</sub> PS-434	103a-E	449,766	6 <sup>h</sup> 12 <sup>m</sup>	+29°32'		
"	"	PS-435	103a-0	458,884	11 <sup>h</sup> 8 <sup>m</sup>	+29°		
Feb 9/10	Survey	O-243	103a-0	458,884	8 <sup>h</sup> 0 <sup>m</sup>	-18°	chipped emulsion	A C
"	"	E-243	103a-E	449,766	"	"	scotch-tape seeing	A C
"	"	O-244	103a-0	458,884	9 <sup>h</sup> 36 <sup>m</sup>	-18°	worms	A C
"	"						elongated images	R

[illegible]



Run No. 16.

## Supply Record

On hand beginning of run Jan. 29, 1951

D-19	37 1/3 gal. Naccifix	10 gal. Nacc. Conc.	19 gal. Acetic acid	1 gal. Dist. Water	7 gal.
	200"	48"	open	total	
420,649	—	11	—	44	
423,887	—	30	—	120	
449,667	94	—	—	376	
449,766	37	3	2	162	
449,767	32	—	—	128	
449,768	27	—	—	108	
458,884	98	7	2	422	
				<del>407</del>	
	From 200"	12 boxes	449,766		

On hand end of run Feb. 14, 1951

D-19	28 1/3 gal Naccifix	7 gal Naccifix Concentrate	14 gal + 2 tanks Acetic Acid	2 gal	Dist. Water	7 gal
	200"	48"	open	total	Used	
420,649	—	7	1 tested	29	15	
423,887	—	30	—	120	0	
449,667	94	—	—	376	0	
449,766	25	11	2 (tested)	146	16	
449,767	32	—	—	128	0	
449,768	27	—	—	108	0	
458,884	98	3	3 + 4 (tested)	411	11	

1 420,649 to Pasadena

Run No. 16

plate Log.

Emulsion Type	Emulsion No.	Date	Total	Broke	Good	Remarks
103a-0	458,884	Feb 1/2	2	-	2	
"	420,649	"	2	-	2	
"	"	Feb 2 1/2	5	1	4	
"	"	Feb 2 1/4	6	-	6	
103a-E	449,766	"	6	-	6	
103a-0	420,649	Feb 4 1/5	3	-	3	1 broke later during unloading
"	458,884	Feb 5 1/6	4	-	4	
103a-E	449,766	"	2	-	2	
103a-0	458,884	Feb 9 1/10	3	-	3	
103a-E	449,766	"	4	1	3	1 broken in box
103a-0	458,884	Feb 13 1/14	1	-	1	used for test.

Totals	Total	Broke	Good	
420,649	16	1	15	pass 1 broke in plate holder
449,766	12	1	11	broke in box
458,884	10 11	0	11	2 used for tests

last month	Exposed		Left to Pasadena	Used
0	420,649	13	1 ✓	15
2	449,766	15	2 ?	16
2	458,884	9	4 ✓	11

1 458,884 opened for backing examination

Shipping: 12 pair down February 14, 1951.

Run No. 17

48" Schmidt  
Observing Schedule

	Date	Start Work	Stop Work	No. of Plates	No. of Survey Pair	Observers	Remarks	Sky	Seeing
Mon.	Feb 26/27	E: 7:16	Mr. 11:13	0	0	Ha	Storm		
	27/28	7:17	12:25	0	0	"	"	Clouds	
	Feb 28/Mar 1	7:18	1:35	0	0	Wi	"		
	Mar 1/2	7:19	2:41	0	0	"	"		
	2/3	7:20	3:38	0	0	"	"		
	3/4	7:21	4:26	0	0	"	Clear		<1
	4/5	7:21	D 5:00	4	0	"	Clouded over		1+
	5/6	7:22	4:59	0	0	"	Storm		
	6/7	7:22	4:58	1	0	"	Fog - thin clouds		<1 to 1+
	7/8	7:23	4:58	1	0	"	Clouds		1-3
	8/9	7:23	4:56	0	0	Ha	"		<1-2
	9/10	Ms 8:06	4:55	0	0	"	"Muddy" Sky		<1-1
	10/11	9:02	4:54	0	0	"	"Muddy" Sky - Strong N.W. Wind		<1
	11/12	10:02	4:53	0	0	"	" " " N.E. "		<1
	12/13	11:03	4:52	3	1	"	Clear		1-2+
	13/14	12:02	4:51	0	0	"	Muddy Sky - Strong N.E. Wind		<1-1
	14/15	12:59	4:50	0	0	"	Clear, N.W. Wind		<1-2-
				9	1				

Run 18 : Mon Mar 26 - Wed Apr 11 Wi Mar 26 - Apr 5

Bob 1° in both March &amp; Apr

Ha Apr 5 12

Wi 19° in March Ha 1° in Apr



Run No. 17

## Observing Log

A = Accept

R = Reject

C = Card

✓ = Final

Feb 26/27 - 1951 - Mar 14/15, 1951

Date	Program	Plate No.	Emulsion Type	Emulsion No.	$\alpha$	$\delta$	Remarks	
Feb 26/27	Survey	No Observations					Storm	
" 27/28	"	"	"	"	"	"	"	Clouds
Feb 28/Mar 1		"	"	"	"	"		
Mar 1/2		"	"	"	"	"		
" 2/3		"	"	"	"	"		
Mar 3/4		"	"	"	"	"		
Mar 4/5	Tests:	F-1	103a-0	458,884	5 <sup>h</sup> 52 <sup>m</sup>	+11° 45'	PH-1	focus plate
		F-2	103a-E	449,766	6 <sup>h</sup> 37 <sup>m</sup>	+13° 2'	PH-3 +	#27
		PS-437	103a-0	458,884	9 <sup>h</sup> 52 <sup>m</sup>	+69° 18'	M-81	-Hubble
		PS-438	103a-0	458,884	10 <sup>h</sup> 27 <sup>m</sup>	+29° 46'	S.A.54	-Baum
Mar 5/6		No Observations						
Mar 6/7		PS-439	103a-0	458,884	13 <sup>h</sup> 6 <sup>m</sup>	+27° 39'	S.A.57	-Baum
Mar 7/8	Tests	T-1	103a-E	449,766	6 <sup>h</sup> 7 <sup>m</sup>	+22° 12'		
Mar 8/9		No Observations						
" 9/10		"	"	"	"	"		
" 10/11		"	"	"	"	"		
" 11/12		"	"	"	"	"		
" 12/13	<del>Sur</del>	PS-440	103a-0	458,884	9 <sup>h</sup> 51.5 <sup>m</sup>	+69° 18'	M81	
"	Survey	O-246	"	"	13 <sup>h</sup> 36 <sup>m</sup>	+48°		R ✓ <sup>c</sup>
"	"	E-246	103a-E	449,766	"	"	trails	R ✓ <sup>c</sup>
Mar 13/14		No Observations						
" 14/15		"	"	"	"	"		
		Totals:	458,884	6				
			449,766	3				

# Run No. 17 Supply Record

On hand beginning of run Feb. 26/27, 1951

D-19 28  $\frac{1}{3}$  Gal. Rec'd. 2-26-51 32 Gal. Total 60  $\frac{1}{3}$  Gal.

Naccofix 14 Gal. " " 16 Gal. " 30 Gal.

Naccofix 7 Gal.

Acetic Acid 1  $\frac{2}{3}$  Gal.

	200"	48"	OPEN	TOTAL
420,649	—	7	—	28
423,887	—	30	—	120
449,667	94	—	—	376
449,766	25	11	2	146
449,767	32	—	—	128
449,768	27	—	—	108
458,884	98	3	7	411

Mar 6 2 gal D-19 to 18"

Mar. 7. 2 large batteries → 200" , 2 small batteries → 18"

ON HAND END OF RUN - MAR. 14/15 - 1951

D-19 56 GAL.

NACCO. 30 "

NACCO. 6 "

ACETIC ACID 1  $\frac{2}{3}$  "

	200"	48"	OPEN	TOTAL	Used
420,649	—	7	—	28	
423,887	—	30	—	120	
449,667	94	—	—	376	
449,766	25	10	3	143	✓ 3
449,767	32	—	—	128	
449,768	27	—	—	108	
458,884	98	3	1	405	✓ 6

Run No. 17

Plate Log.

Emulsion Type	Emulsion No.	Date	Total	Broken	Good	Remarks
103a-0	458,884	Mar. 7, 1951	3	0	3	
103a-E	449,766	"	4	0	4	

	Start	Used	Tested <del>End</del>	<del>should have</del> End
103a-E	2	3	4	3
103a-0	4	6	3	1

Note: at beginning of run 3 2 tested 103a-E 449,766  
4 tested 103a-0 458,884

Run No. 18

48" Schmidt  
Observing Schedule

Mar. 26 - April 12

Date	Start Work	Stop Work	No. of Plates	No. of Survey Pairs	Observations	Remarks	Sky	Seeing
Mar 26/27	E: 7:40	Mr. 10:14	0	0	Wi		Fog till midnight	
27/28	7:41	11:26	6	2	"		bright, wet sky	1+ to 2+
28/29	7:42	0:35	0	0	"		Clouds	1+ to 3+
29/30	7:43	1:34	0	0	"		Clouds	
30/31	7:44	2:34	0	0	"		Storm	
Mar 31/Apr 1	7:45	3:06	0	0	"		Fog	<1
Apr. 1/2	7:46	3:40	0	0	"		Thin clouds	<1 to 2+
2/3	7:47	4:10	0	0	"		Thin clouds	1
3/4	7:48	D: 4:23	0	0	"		fog	
4/5	7:49	4:21	0	0	Ha		fog-rain	
5/6	7:50	4:19	0	0	"		" "	
6/7	7:51	4:17	1	0	"		thin Clouds	<1-2
7/8	7:52	4:15	8	3	"		clear	1-2+
8/9	Ms: 8:50	4:13	0	0	"		Muddy - N.W. Wind	1
9/10	9:50	4:11	0	0	"		Clouds	<1-3
10/11	10:48	4:09	0	0	"		thin Clouds	1-2+
11/12	11:43	4:07	0	0	"		" "	
12 Nights			15	5				

Run 19:

~~Mon. Apr 23 -~~  
~~Mon. Apr 23 - May 1~~

Wi: ~~Apr 23 - May 2~~Ha: ~~May 2 - May 18~~

Apr. 23 - May 2

May 2 - May 18

~~Wi: Mt. Wilson~~  
~~Apr 27 - May 1~~

Run 19:

Monday, April 23

E: 8:00 P.M., Mr: 9:10 P.M.

Monday, May 14/15

Ms: 1:22 A.M., D: 3:30 A.M.



# Observing Log

A = accept  
R = reject  
c = card  
✓ = final

Run No. 18.

Mar 26/27 - Apr. 11/12, 1951

Date	Program	Plate No.	Emulsion Type	Emulsion No.	$\alpha$	$\delta$	Remarks.	
Mar 26/27		No	Observations					
Mar 27/28	Survey	O-247	103a-o	458,884	8 <sup>h</sup> 0 <sup>m</sup>	+12°	seeing	A ✓ c
"	"	E-247	103a-E	449,766	"	"	"	A ✓ c
"	"	O-248	103a-o	458,884	9 <sup>h</sup> 20 <sup>m</sup>	+36°	Seeing + focus	R ✓ c
"	"	E-248	103a-E	449,766	"	"	"	R ✓ c
	Focus	F-1	103a-o	458,884	Focus plate P-H-1			
"	"	F-2	103a-E	449,766	"	"	PH-3 + Filter No. 27	
Mar 28/29	Survey	No	Observations					
Mar 29/30		No	Observations					
Mar 30/31		No	Observations					
Mar 31/Apr 1		No	Observations					
Apr 1/2		No	Observations					
Apr 2/3		No	Observations					
Apr 3/4		"						
" 4/5		"						
" 5/6		"						
" 6/7		PS-441	103a-o	420,649	12 <sup>h</sup> 20 <sup>m</sup>	+16°		
" 7/8		PS-442	"	"	12 <sup>h</sup> 40 <sup>m</sup>	+16°		
"		PS-443	"	"	12 <sup>h</sup> 20 <sup>m</sup>	+10°		
"	Survey	O-249	"	458,884	13 <sup>h</sup> 0 <sup>m</sup>	+30°	norm. light leak	R ✓ c
"	"	E-249	103a-E	449,776	"	"	guiding	R ✓ c
"	"	O-250	103a-o	458,884	14 <sup>h</sup> 0 <sup>m</sup>	+12°		R ✓ c
"	"	E-250	103a-E	449,776	"	"	changed guidens.	R ✓ c
"	"	O-251	103a-o	458,884	16 <sup>h</sup> 48 <sup>m</sup>	+12°	seeing	A ✓ c
"	"	E-251	103a-E	449,776	"	"	seeing	A ✓ c
Apr. 8/9	"	No	Observations					
" 9/10	"	"						
" 10/11	"	"						
" 11/12	"	"						
Totals					458,884	6		
					420,649	3		
					449,776	6		

Run No. 18

## Supply Record

On hand beginning of run: Mar 26/27, 1951

D-19	Naccofix Conc.	Naccofix	Acetic Acid	
56	30	6	1	
	200"	48"	open	Total
420,649	-	7		28
423,887	-	30		120
✓ 449,667	94			376
✓ 449,766	25	10	3	143
✓ 449,767	32			128
✓ 449,768	27			108
458,884	98	3	1	405

March 31 4 gal D-19 to 200"

On hand End of run - April 1/12-1951

D-19	Naccofix Conc.	Naccofix	Acetic acid	
47 1/2	30	5	1 2/3	
	100"	48"	open	box Total
420,649	-	6	4	1 25 ✓
423,887	-	30		120 ✓
449,667	94			376 ✓
449,766	25	8	3	2 133 ✓
449,767	32			128 ✓
449,768	27			108 ✓
458,884	94	5	2	1 398 ✓

should be in boxes 2 449,766  
1 458,884

Run No. 18.

Plate Log.

Emulsion Type	Emulsion No.	Date	Total	Broke	Good	Remarks
103a-O	458,884	Mar. 27	4	0	4	
103a-E	449,766	"	4	0	4	
103a-O	420,649	April 4	2	0	2	
103a-E	449,766	" 7/8	1	0	1	
103a-O	458,884	" 7/8	2	0	2	
103a-O	420,649	" 7/8	2	0	2	
			Totals	Tested	Used	
			458,884	6	6	
			420,649	4	3	
			449,766	5	6	
				<u>15</u>		

Run No. 19

48" Schmidt  
Observing Schedule

April 23 - May 12, 1951

Date	Start Work	Stop Work	No. of Plates	No. of Survey Pairs	Observer	Remarks	Sky	Seeing
Apr. 23/24	E: 8:00 P.M.	Mr. 9:00 A.M.	0	0	Wi		Clouds	<1
24/25	8:02	10:22	0	0	"		Storm	
25/26	8:04	11:27	0	0	"		Storm	
26/27	8:06	12:21	0	0	"		Storm	
28/28	8:07	1:05	4	0	"	Very Wet	Thin clouds	1-4
28/29	8:08	1:42	0	0	"		Storm	
29/30	8:09	2:13	0	0	"		Storm	
Apr 30/May 1	8:10	2:40	1	0	"	West Wind	Wet	<1
May 1/2	8:11	3:06	0	0	"		Wet & Fog	<1-2
2/3	8:12	3:31	3	1	<del>Wi</del> "	Clouded fogged over about 10:30		3
3/4	8:13	D 3:43	6	1	"	Wet, scattered clouds		<1-3+
4/5	8:14	3:42	1	0	"		cloudy	1-5
5/6	8:15	3:41	0	0	Ha		thin clouds	<1-1
6/7	8:16	3:40	0	0	"		n.w. wind low clouds	
7/8	Ms 8:39	3:38	0	0	"		n.w. wind clear	<1-1+
8/9	9:35	3:36	0	0	"		n.w. wind thin clouds	1
9/10	10:25	3:34	1	0	"		thin clouds	1-2+
10/11	11:10	3:32	0	0	"		"	
11/12	11:50	3:30	0	0	"		clouds	
19 nights			16	2			1/2 night	

Run 20    Thur. May 24    E: 8:40    Mr.: 11:00    Wi    Thur: May 24 - Mon: June 4  
               Thur. June 14    Ms: 0:41    D: 3:10    Ha    Mon: June 4 - Thur: June 14



Run No. 19

# Observing Log

A = accept  
R = reject  
C = card  
V = final

April 23/24 - May 11/12, 1951

Date	Program	Plate No	Emulsion Type	Emulsion No.	$\alpha$	$\delta$	Remarks	
Apr 23/24		No	Observations					
Apr 24/25		No	Observations					
Apr 25/26		No	Observations					
Apr 26/27		No	Observations					
Apr 27/28	Tests	PS-444	103a-0	420,649	Q plate	NGC 3379		
		F-1	103a-0	458,884	13 <sup>h</sup> 52 <sup>m</sup>	+18°38'	Focus: PH-1	
		F-2	103a-E	449,766	13 <sup>h</sup> 44 <sup>m</sup>	+17°42'	Focus: PH-3 + #34 filter	
		F-3	103a-E	449,766	14 <sup>h</sup> 54 <sup>m</sup>	+14°39'	Focus: PH-3 + #32 filter	
Apr 28/29		No	Observations					
Apr 29/30		No	Observations					
Apr 30/May 1		PS-445	103a-0	420,649	Q plate	NGC 3379		
May 1/2		No	Observations					
May 2/3	Survey	O-252	103a-0	458,884	11 <sup>h</sup> 12 <sup>m</sup>	+6°	emulsion defects, focus?	R C
		E-252	103a-E	449,766	"	"	focus?	R C
		T-1	103a-E	449,766	12 <sup>h</sup> 24 <sup>m</sup>	+12°	clouded over	
May 3/4	Tests	F-4	103a-E	423,887	13 <sup>h</sup> 17 <sup>m</sup>	+10°17'	Focus PH-3	
		F-5	"	"	"	"	Focus PH-1	
		F-6	"	"	13 <sup>h</sup> 56 <sup>m</sup>	+14°54'	Focus PH-1 + #34	
		F-7	"	"	"	"	Focus PH-1 + #33 (Filter fell out)	
	Survey	O-253	103a-0	458,884	17 <sup>h</sup> 12 <sup>m</sup>	0°	focus? - seeing	R C
<del>May 4/5</del>		E-253	103a-E	449,766	"	"	" - seeing	R C
May 4/5	Test	PS-446	103a-0	420,649	12 <sup>h</sup> 57 <sup>m</sup>	+28°21'	Q plate Coma Cluster	
May 5/6		No	Observations					
May 6/7		"	"	"				
" 7/8		"	"	"				
" 8/9		"	"	"				
" 9/10	Z	PS-447	103a-0	458,884	13 <sup>h</sup> 11 <sup>m</sup> 20 <sup>s</sup>	+30°04'58"	PH-1	
" 10/11		No	Observations					
" 11/12		"	"	"				
Plates Exposed:					420,649	3		
					458,884	4		
					449,766	5		
					423,887	4		
					TOTAL	16		

Run No. ~~22~~ 19.

## Supply Record

On hand beginning of run: Apr 23/24, 1951

D-19	Nuccofix Conc.	Nuccofix	Acetic Acid		
47 1/3	30	5	1 2/3		
	200"	48"	Open	box	Total
420,649	—	6		1	25
423,887	—	30			120
449,667	94				376
449,766	25	8	3	2	137
449,767	32				128
449,768	27				108
458,884	94	5	2	1	399

April 26 4 gal Nuccofix Conc. to 200"  
 May 8 4 gal. D-19 to 200"

on hand End of run

420,649	—	5	—	20
423,887	—	29	—	116
449,667	94	—	—	376
449,766	25	7	4	132
449,767	32	—	—	128
449,768	27	—	—	108
458,884	94	4	3	395

D-19 — 40 gal  
 Nucco 26 "  
 Nuccofix 4 "  
 Acetic acid 1 2/3 "

		Box	1st test	
		EXD.	Drake	Run
✓ 5	420,645	3	1	0
✓ 4	458,884	4	0	1
✓ 5	449,766	5	0	2
✓ 4	423,887	4	0	0

Run No. <sup>19</sup> 20

# Plate Log

Emulsion Type	Emulsion No.	Date	Total	Broke	Good	Remarks
103a-O	420,649	April 30	2	1	1	Only 3 in box?
103a-O	458,884	May 2	2		2	
103a-E	449,766	"	3		3	
103a-E	423,887	May 3	4		4	
103a-O	420,649	May 4	1		1	
103a-O	458,884	May 7	2		2	
103a-E	449,766	May 7	2		2	
			Total	Good		
Totals:			420,649	<del>2</del> 3	2	
			458,884	2	2	
			449,766	5	5	
			423,887	4	4	
				<u>16</u>	<u>15</u>	

Run No. 20

48" Schmidt  
Observing Schedule

May 24 - June 14

Date	Start Work	Stop Work	No. of Plates	No. of Survey Pair	Observers	Remarks	Sky	Seeing
May 24/25	E: 8:34	Mr 11:01	6	1	Wi	Temp 65-70	Clear	2-3
25/26	8:35	11:42	5	2	"	"	"	2-3
26/27	8:36	12:15	4	0	"	68-76	"	<2 to 2+
27/28	8:37	12:44	4	0	"	66-70	Clouds	2-
28/29	8:38	1:10	0	0	"		Cloudy	
29/30	8:39	1:35	3	0	Wi Hendrix	65-70	Partly Cloudy	1
30/31	8:40	2:01	4	0	" Rule Hendrix	60	clear	1
May 31/June 1	8:41	2:29	6	0	" Rule Hendrix	45	clear	<1
June 1/2	8:42	2:59	3	0	"	60	clear	4-2
2/3	8:43	D 3:54	4	0	"	60°	haze	3-7
3/4	8:44	D 3:14	3	0	"	52°	clear	1-2
4/5	8:45	3:13	1	0	Ha	52°	clear	4-1+
5/6	8:46	3:13	0	0	"		fog	<1
6/7	Ms 9:08	3:13	2	0	"	worked on radial balance of mirror	foggy Muddy Sky	<1-1-2
7/8	9:49	3:12	2	0	"	Cont. Rad. Balance	fog-clear	<1 to 2
8/9	10:25	3:12	1	0	"	Finished Rad. Balance	Clear	<1-2-
9/10	10:55	3:12	0	0	"		Muddy	<1-1
10/11	11:23	3:12	2	0	"		Clear	2-1
11/12	11:49	3:11	3	1	"		Clear	2-3
12/13	12:15	3:11	2	0	"		Clear	<1-3
13/14	12:41	3:11	5	0	"		"	2-4
21 nights.			60	4			7 good	

Run 21. Monday June 25, 1951 E: 8:53, Mr 11:26 Ha Mon 25 - Thur July 5  
 Saturday July 14, 1951 Ms: 12:19, 0 3:03 W. Mon 2 - Sat 14



Run No. 20

## Observing Log

A = accept  
R = reject  
C = cond  
V = final

Date	Program	Plate No	Emulsion Type	Emulsion No	$\alpha$	$\delta$	Remarks	
May 24/25	Focus	F-1	103a-E	449,766	PH-1	Direct	artigmatic figure	
		F-2	"	423,887	PH-1	+ #34		
		F-3	"	"	PH-1	+ #32		
		F-4	"	"	PH-2	Direct		
	Survey	O-254	103a-0	458,884	12 <sup>h</sup> 48 <sup>m</sup>	-12°	elongation in NE & NW	R ✓ C
		E-254	103a-E	449,766	"	"	elongation in NE & NW Crack worm	R ✓ C
May 25/26	Focus	F-5	"	423,887	PH-3	Direct		
	Survey	O-255	103a-0	458,884	11 <sup>h</sup> 36 <sup>m</sup>	+18°	artigmatic elongation	R ✓ C
		E-255	103a-E	449,766	"	"	"	R ✓ C
		O-256	103a-0	458,884	15 <sup>h</sup> 12 <sup>m</sup>	+12°	"	R ✓ C
		E-256	103a-E	449,766	"	"	"	R ✓ C
May 26/27	Tests:	T-1	103a-E	423,887	Pole Alignment			
		T-2	"	"	Zenith Drift plate (guided)			OT 68°
		T-3	"	"	SW Drift Plate NGT			68°
		T-4	"	"	" " " SGT			68°
May 27/28	Tests:	F-6	103a-E	423,887	PH-1 + #34			DT 69°
		T-5	"	"	SW Drift Plate NGT	PH-1		68°
		T-6	"	"	SW Drift Plate NGT	PH-2		67°
		T-7	"	"	SW Drift Plate NGT	PH-1, last port.		67°
May 28/29		No Observations			Hendrix & Rule - make adjustments.			
May 29/30	Tests:	F-7	103a-E	423,887	PH-1	Direct focus plate (artigmatic)		OT 58°
		F-8	"	"	"	"	"	
		T-8	"	"	PH-1	Drift plate S.W.	trail	58°
May 30/31	Tests:	T-9	"	"	"	"	"	good 57°
		T-10	"	"	"	"	SE	trail 57°
		T-11	"	"	"	"	SE	swarm corner 56°
		T-12	"	"	"	"	SW	possible artigmatic 56°
May 31/June 1	Tests:	F-9	103a-0	458,884	PH-1	Direct Focus	artigmatic	53°
		T-13	"	"	"	Drift plate SW	no trails	52°
		T-14	103a-E	423,887	"	"	SE	51°
		F-10	103a-0	458,884	"	Direct Focus	relieved center pin TEST corrected	51°
		F-11	103a-0	"	"	"	artigmatic	00 58° 7 53°
		T-15	103a-E	423,887	"	Drift Plate SW	trails	OT 51° TT 50°
June 1/2	Tests	T-16	"	"	"	"	"	Dsp 762°
		T-17	"	"	"	"	SE	no trails
		F-12	"	"	Direct Focus		artigmatic	056° 7 59°

Run No. 20

## Observing Log

A = accept  
R = reject  
c = card  
✓ = final

Date	Program	Plate No.	Emulsion Type	Emulsion No.	$\alpha$	$\delta$	Remarks
June 2/3	Tests:	T-18	103a-0	458,884	PH-1	Drift Plate SW	062° T 64° astigmatism
		T-19	"	"	"	" " SE	060° " T 62°
		F-13	"	"	"	Direct focus	059° " T 60°
		PS-448	"	"	Q plate S.A.	107,61,89	Baum
June 3/4	Tests	T-20	103a-E	423,887	PH-1	Drift Plate SW	057° T 62° sound
	"	T-21	"	"	"	" " SE	060° " T 56°
	"	F-14	"	"	"	Direct focus	058° T 62° Astigmatism
June 4/5	"	F-15	"	"	PH-3	"	0.50° T. 52° Astigmatism
June 5/6	"	No observations					
" 6/7	"	F-16	103a-E	423,887	PH-3	Direct Focus	D. 42°, T. 49° See Card F-16
" "	"	F-17	"	"	"	"	D. 42°, T. 49° See Card F-16
" 7/8	"	F-18	"	"	"	"	Plates Look O.K.
" "	"	F-19	"	"	PH-1	"	" " "
June 8/9	"	T-22	"	"	"	Drift Plate - Seeing too Poor	
" 9/10	"	No Observations					
" 10/11	"	F-20	103a-E	423,887	PH-1		Plate Good
" "	"	T-23	"	"	"	Extremely Slight Trails - East 3	
" 11/12	"	T-24	"	"	"		
" "	Survey	O-257	103a-0	458,884	19 <sup>h</sup> 56 <sup>m</sup>	+30°	Elongated Images ✓ VR.
" "	"	E-257	103a-E	449,766	"	"	" " " ✓ VR.
" 12/13	Tests	T-25	"	423,887			
" "	"	T-26	"	"			
" 13/14	"	T-27	"	"			
		T-28					trails
		T-29					
		T-30					
		F-21					
		60			449,766	5	
					423,887	43	
					458,884	12	
						60	

Run No. 20

## Supply Record

On hand beginning of run: Apr 23 May 24/25, 1951

D-19	Naccofix Conc.	Naccofix	Acetic Acid		
40 gal	26	4	1 2/3 gal		
	200"	48"	Open	box	Total
420,649	—	5	—	—	20
423,887	—	29	—	—	116
✓ 449,667	94	—	—	—	376
449,766	25	7	2	2	132
✓ 449,767	32	—	—	—	128
✓ 449,768	27	—	—	—	108
458,884	94	4	2	1	395

1 gal. D-19 to 18"

on hand at end of run

D-19	Naccofix Conc.	Naccofix	Acetic Acid
28 Gal.	24 Gal.	1 1/2 Gal.	1 1/2 Gal.
420,649	—	5	—
423,887	—	18	—
449,667	94	—	—
449,766	25	6	2
449,767	32	—	—
449,768	27	—	—
458,884	94	1	2

✓ should have 73 unless  
1 broke in press  
43 used

✓ 5 used

✓ 12 used



Run No. 20

Plate Log

Date	Emulsion	Emulsion No.	Total Tested	Good	Break	Remarks
May 24	103a-E	423,887	4	4	0	
May 25	103a-E	449,766	2	2	0	
"	103a-O	458,884	2	2	0	
May 26	103a-E	423,887	4	4	0	
May 27	103a-E	423,887	4	4	0	
May 29	103a-E	423,887	3	3	0	
May 30	103a-E	423,887	5	5	0	
May 31	103a-O	458,884	<del>4</del>	<del>4</del>	0	
May 31	103a-E	423,887	2	2	0	
June 1	103a-E	423,887	2	2	0	
June 2	103a-O	458,884	4	4	0	
June 3	103a-E	423,887	3	3	0	
June 4	"	"	2	2	0	
" 6	"	"	1	1	0	
" 7	"	"	2	2	0	
" 8	"	"	1	1	0	
" "	103a-O	458,884	2	2	0	
" "	103a-E	449,766	2	2	0	
" 10	"	423,887	2	2	0	
" 11	"	"	1	1	0	
" 12	"	"	2	2	0	
" 13	"	"	2	2	0	
			<u>4</u>	<u>3</u>	<u>1</u>	
			60			
		423,887	4			
		449,766	4			
		458,884	12			
			<u>60</u>			



# Run 20B Test Run

June 18/19, 1961.

plates for		"Plate in Plateholder Test"		Remarks	
Plate No.	Emulsion Type	Emulsion No.			
SW T-31	103a-b	458,884	4 "pin holes" to test for motion	-	indecisive
SW T-32	103c-E	449,766	Relaxed 6 hours	-	no trails (very slight)
NE T-33	"	423,887	Warm holder - immediate loading	"	"
NE T-34	"	"	Chilled 1 hr. @ 40°F	Differential Trails	unlike others
NE T-35	"	"	Relaxed 13 1/4 hours		trails
NE T-36	"	"	Loaded Straight Down		Differential Trails
S F-22	"	"	Focus plate		No Autigmatica
		7			
		1 428,887	left in box		
T-37	103a-0	423,887	Wedges	Trails	NE
T-38	"	"	Sound end (polar axis) raised	0.082" NE	revent translation
T-39	"	"	"	0.028" NE	translation
T-40	"	"	"		SE
			" plates used		
Seeing	1-3	Full Moon			
Inventory:					
D-19	Vaccifix Conc.	Vaccifix	Acetic Acid		
		1 1/2 gal	1 1/2 gal		
	200"	48"	Open	box	
420649	-	5	-	-	20
423,887	-	105	-	1	65 ✓
449,667	94	-	-	-	374
449,766	25	6	2	-	126 ✓ 1 used
449,767	32	-	-	-	128
449,768	27	-	-	-	108
458,884	94	1	2	-	382 ✓ 1 used

Run No. 20 B

Plate log

Date	Type Emulsion	Emulsion No.		Total Tested	Good	Break	Remarks
June 18/19	103a-E	423,867	.	1	1	0	
"	"	"		1	0	1	Broken in bot
"	"	"		2	1	1	at 60 sec.
"	"	"		4	2	0	
				8	6	2	
June 19/20	103a-E	423,867		4	4	0	
				12	10	2	

Run No. 21

48<sup>th</sup> Schmidt  
Observing Schedule

Date	Start Work	Stop Work	No. of Plates	No. of Survey Pair	Observers	Remarks	Sky	Seeing
June 23/24	E= 8:53	Mr= 10:45	4	0	Ha		clear	1-3
24/25	8:53	11:13	6	0	"		"	1-3
25/26	8:53	11:39	3	1	"		"	2-4
26/27	8:53	12:05	6	1	"		"	1-3
27/28	8:53	12:32	3	1	"		"	1-2
28/29	8:53	1:01	3	1	"		Smoke - Clouds	2-3
29/30	8:53	1:34	0	0	"		Clouds	<1-2-
June 30/July 1	8:53	2:14	0	0	"		Muddy Wind, H.W.	<1-15
July 1/2	8:52	D= 3:14	0	0	"		clear H.W. Wind	<1-1
2/3	8:52	3:14	0	0	"		clear H.W. Wind	1-1+
3/4	8:52	3:15	2	1	"		clear H.W. Wind	1-2-
4/5	8:51	3:16	8	3	"		clear S.W. Wind	1-3
5/6	8:51	3:17	8	4	"		clear	2-3+
6/7	Ms= 8:58	3:17	8	4	Wi		Clear	3-5
7/8	9:26	3:18	10	3	"		Clear	3-4
8/9	9:52	3:18	8	3	"		Clear	2-3
9/10	10:17	3:19	5	2	"		Clear	<1-3
10/11	10:43	3:19	6	2	"		Clear	<1-3
11/12	11:11	3:20	7	3	"		Clear	3-4
12/13	11:42	3:20	4	2	"		Clear	1-3
13/14	12:19	3:20	5	2	"		Clear	2-3
14/15	1:04	3:21	0	0	"		Overcast	-
15/16	2:02	3:21	1	0	"	Thunder Storm - Partly Cloudy		3+
23			97	33		Good Days 14		

Run No. 22.

Mon July 23 - Thur Aug 2 - ~~Ha~~ ~~Wi~~ Wi  
 Thur Aug 2 - Mon Aug 13 - ~~Ha~~ ~~Wi~~ Ha

Run No. 21

## Observing Log

A = Accept

R = Reject

C = Card

V = final

Date	Program	Plate No.	Emulsion type	Emulsion No.	$\alpha$	$\delta$	Remarks
June 23/24	Test	F-1	103a-E	423,887			PH-1 = 0.10 out
"	"	T-1	"	"	17 <sup>h</sup> (N.E.) + 43°		Good Plate
"	"	T-2	"	"	16 <sup>h</sup> (S.W.) + 14°		Shows Astig.
"	"	T-3	"	"	17 <sup>h</sup> (N.W.) + 45°		Good
June 24/25	"	F-2	"	"	14 <sup>h</sup> (S.E.) + 14°		PH-1
"	"	F-3	"	"	16 <sup>h</sup> (N.E.) + 39°		PH-1
"	"	F-4	"	"	15 <sup>h</sup> (N.W.) + 45°		PH-3
"	"	F-5	"	"	15 <sup>h</sup> (S.W.) + 13°		PH-3
"	"	F-6	"	"	17 <sup>h</sup> (*35) + 14°		PH-1
"	"	F-7	"	"	17 <sup>h</sup> (*36) + 13°		PH-1
June 25/26	"	F-8	"	"	15 <sup>h</sup>	+ 18°	PH-1
"	Survey	O-258	103a-E	458,884	15 <sup>h</sup> 52 <sup>m</sup>	+ 48°	PH-3 A ✓
"	"	E-258	103a-E	449,766	"	"	PH-3 A ✓
June 26/27	Moved Mirror back $\frac{1}{2}$ " (3.17 mm) and adjusted axial supports						Refocused
"	Test	F-9	103a-E	423,887	14 <sup>h</sup> 47 <sup>m</sup>	+ 19°	PH-3 Tests for Astig.
"	Survey	O-259	103a-E	458,884	17 <sup>h</sup> 16 <sup>m</sup>	+ 36°	PH-3 A ✓
"	"	E-259	103a-E	449,766	"	"	PH-3 A ✓
"	Tests	F-10	103a-E	423,887	18 <sup>h</sup> 32 <sup>m</sup>	+ 20°	PH-3 Tests for Astig.
"	"	F-11	"	"	20 <sup>h</sup> 07 <sup>m</sup>	+ 20°	PH-3 " " "
"	"	F-12	"	"	21 <sup>h</sup> 03 <sup>m</sup>	+ 20°	PH-3 " " "
June 27/28	Survey	O-260	103a-E	458,884	17 <sup>h</sup> 46 <sup>m</sup>	+ 24°	PH-3 A ✓ SPRINGS CHANGED Water filter changed
"	"	E-260	103a-E	449,766	"	"	PH-3 A ✓
"	Test	F-13	"	423,887	16 <sup>h</sup>	+ 19°	PH-1
June 28/29	"	F-14	"	"			PH-1
"	Survey	O-261	103a-E	458,884	17 <sup>h</sup> 0 <sup>m</sup>	+ 42°	PH-3 SPRINGS CHANGED R Clouds DARK
"	"	E-261	103a-E	449,766	"	"	PH-3 A ✓
June 29/30	No Observations						
June 30/July 1	"	"	"	"			
July 1/2	"	"	"	"			
" 2/3	"	"	"	"			
" 3/4	Survey	O-262	103a-E	458,884	21 <sup>h</sup> 40 <sup>m</sup>	+ 30°	PH-3 A ✓
"	"	E-262	103a-E	449,766	"	"	PH-3 A ✓
" 4/5	"	O-263	103a-E	458,884	17 <sup>h</sup> 20 <sup>m</sup>	+ 24°	PH-3 A ✓
"	"	E-263	103a-E	449,766	"	"	" A ✓
"	"	O-264	103a-E	458,884	18 <sup>h</sup> 48 <sup>m</sup>	+ 6°	" A ✓
"	"	E-264	103a-E	449,766	"	"	" A ✓



# Run No. 21 Observing Log

A = Accept  
R = Reject  
C = Card  
v = final

Date	Program	Plate No.	Emulsion Type	Emulsion No.	$\alpha$	$\delta$	Remarks	
July 5/5 AM	Survey	O-265	103a-o	458,884	20 <sup>h</sup> 48 <sup>m</sup>	+18°		R ✓
"	"	E-265	103a-E	449,766	"	"		R ✓
"	"	PS-449	103a-o	458,884	20 <sup>h</sup>	+41°		
"	"	S.A. 68 PS-450	"	"	0 <sup>h</sup> 14 <sup>m</sup>	+15°		
" 5/6	Survey	O-266	"	"	17 <sup>h</sup> 12 <sup>m</sup>	-6°		A ✓
"	"	E-266	103a-E	449,766	"	"	developing lines	A ✓
"	"	O-267	103a-o	458,884	18 <sup>h</sup> 38 <sup>m</sup>	+30°	N-S elongation	A ✓
"	"	E-267	103a-E	449,766	"	"		A ✓
"	"	O-268	103a-o	458,884	20 <sup>h</sup> 0 <sup>m</sup>	-6°		A ✓
"	"	E-268	103a-E	449,766	"	"	emulsion	A ✓
"	"	O-269	103a-o	458,884	21 <sup>h</sup> 28 <sup>m</sup>	+36°		A ✓
"	"	E-269	103a-E	449,766	"	"	South center (not 10)	A ✓
July 6/7	Survey	O-270	103a-o	458,884	16 <sup>h</sup> 48 <sup>m</sup>	+6°	slight N-S elongation emulsion defects Thin smoke, clouds	R ✓
"	"	E-270	103a-E	449,766	"	"	"slight out of focus"	R ✓
"	"	O-271	103a-o	458,884	18 <sup>h</sup> 12 <sup>m</sup>	+24°		A ✓
"	"	E-271	103a-E	449,766	"	"	eggs	A ✓
"	"	O-272	103a-o	458,884	19 <sup>h</sup> 8 <sup>m</sup>	+36°	out of focus - N-S elong	R ✓
"	"	E-272	103a-E	449,766	"	"	Out of focus	R ✓
"	"	O-273	103a-o	458,884	20 <sup>h</sup> 48 <sup>m</sup>	+30°	emulsion defects slightly out of focus	R ✓
"	"	E-273	103a-E	449,766	"	"		R ✓
July 7/8	Focus	F-15	103a-E	449,766	With Springs			
"	"	F-16	"	"	Without Springs			
"	"	F-17	"	423,887	PH-1			
"	"	F-18	"	"	PH-3 + #35			
"	Survey	O-274	103a-o	458,884	17 <sup>h</sup> 36 <sup>m</sup>	+18°	slight focus out	A ✓
"	"	E-274	103a-E	449,766	"	"		A ✓
"	"	O-275	103a-o	458,884	19 <sup>h</sup> 30 <sup>m</sup>	+30°		A ✓
"	"	E-275	103a-E	449,766	"	"		A ✓
"	"	O-276	103a-o	458,884	20 <sup>h</sup> 24 <sup>m</sup>	+18°		A ✓
"	"	E-276	103a-E	449,766	"	"		A ✓
July 8/9	Focus	F-19	103a-E	423,887	PH-1			
"	"	F-20	103a-E	423,887	PH-1 + #35		springs	
"	Survey	O-277	103a-o	458,884	17 <sup>h</sup> 44 <sup>m</sup>	+36°		A ✓
"	"	E-277	103a-E	449,766	"	"	line mag?	A ✓
"	"	O-278	103a-o	458,884	19 <sup>h</sup> 36 <sup>m</sup>	+36°	slight horizontal	R ✓
"	"	E-278	103a-E	449,766	"	"	horizontal - vertical	R ✓

Run No. 21

## Observing Log

A = accept  
R = reject  
C = card  
✓ = final

Date	Program	Plate No	Emulsion Type	Emulsion No	$\alpha$	$\delta$	Remarks		
July 8/9	Survey	O-279	103a-0	458,884	21 <sup>h</sup> 0 <sup>m</sup>	+36°	light horizontal astigmatism	A ✓	
	"	E-279	103a-E	449,766	"	"		A ✓	
July 9/10	Focus	F-21	103a-0	458,884	PH-3		↓ springs		
	Survey	O-280	103a-0	458,884	17 <sup>h</sup> 36 <sup>m</sup>	+12°	cracked	R ✓	
	"	E-280	103a-E	449,766	"	"		R ✓	
	"	O-281	103a-0	458,884	19 <sup>h</sup> 30 <sup>m</sup>	+42°		A ✓	
	"	E-281	103a-E	449,766	"	"		A ✓	
July 10/11	Zwicky	PS-451	103a-E	"	Nova Field				
	"	PS-452	103a-0	458,884	"	"			
	Survey	O-282	103a-0	"	18 <sup>h</sup> 12 <sup>m</sup>	+30°		A ✓	
	"	E-282	103a-E	449,766	"	"		A ✓	
	"	O-283	103a-0	458,884	19 <sup>h</sup> 50 <sup>m</sup>	+48°		A ✓	
	"	E-283	103a-E	449,766	"	"		A ✓	
July 11/12	Focus	F-22	103a-E	"	PH-3		Blue plates show more fog, but 11m mag about same		
	Survey	O-284	103a-0	458,884	18 <sup>h</sup> 38 <sup>m</sup>	+24°		A ✓	
	"	E-284	103a-E	449,766	"	"		A ✓	
	"	O-285	103a-0	458,884	20 <sup>h</sup> 22 <sup>m</sup>	+24°		A ✓	
	"	E-285	103a-E	449,766	"	"		A ✓	
	"	O-286	103a-0	458,884	21 <sup>h</sup> 40 <sup>m</sup>	+24°		A ✓	
	"	E-286	103a-E	449,766	"	"		A ✓	
July 12/13	Survey	O-287	103a-0	458,884	18 <sup>h</sup> 48 <sup>m</sup>	+18°		A ✓	
	"	E-287	103a-E	449,766	"	"		A ✓	
	"	O-288	103a-0	458,884	20 <sup>h</sup> 32 <sup>m</sup>	+36°		A ✓	
	"	E-288	103a-E	449,766	"	"		A ✓	
July 13/14	Survey	O-289	103a-0	<del>458,884</del> 449,766	19 <sup>h</sup> 56 <sup>m</sup>	+24°		A ✓	
	"	E-289	103a-E	449,766	"	"		A ✓	
	"	O-290	103a-0	458,884	21 <sup>h</sup> 14 <sup>m</sup>	+24°		A ✓	
	"	E-290	103a-E	449,766	"	"		A ✓	
	Baum	PS-453	103a-E	"	S. A. 94				
July 14/15	Survey	No Observations							
July 15/16	Wilson	PS-454	103a-E	449,766	Check on O, E-290 Nebulosity				
Total Plates Exposed					97				
					423,887		21		
					449,766		39		
					458,884		37		
					97				

# Run No. 21 Supply Record

on hand beginning of run June 15/26, 1951

D-19	naccifix conc.	naccifix	Acetic Acid			
27 gal.	24	2	1 1/2 gal.			
	200"	48"	open	box	Total	"From 200"
420,649	—	5	—	—	20	12 boxes 428,884
423,887	—	15	—	1	61	7 " 449,766
449,667	94	—	—	—	376	
449,766	25	6	2	—	126	
449,767	32	—	—	—	128	
449,768	27	—	—	—	108	
458,884	94	1	2	—	382	

2 gal. D-19 To 200"  
 1 gal D-19 to 200" July 7  
 1 gal Naccifix Conc. 18" July 9  
 1 gal D-19 to 18" July 10  
 1 gal D-19 to 200" July 12  
 4 gal D-19 from Kelly: July 12

ON HAND	D-19	Naccifix conc.	Naccifix	Acetic Acid		
2 1/3 gal	21 gal	0	1 gal			
	200"	48"	Open	box	Total	
420,649	—	5	—	—	20	✓
423,887	—	10	—	—	40	+ 21 exposed = 61 ✓
449,667	94	—	—	—	376	✓
449,766	18	1	—	—	76	+ 39 exposed = 115 + 10 break = 125 ✓ 1 unaccounted
449,767	32	—	—	—	128	✓
449,768	27	—	—	—	108	✓
458,884	82	4	—	—	344	+ 37 exposed + 1 break = 382 ✓

# Shipping List.

O-258

E-258

O-259

E-259

O-260

E-260

O-261

E-261

O-262

E-262

To Pasadena July 5/6-1951 by Dr. Bower (Box #2)

Focus Date June - July - 1951

PH-3 0.0

PH-1 0.12 in

Δ F # 35 0.54 out

Δ F # 36 0.52 out

O-263

E-263

O-264

E-264

O-265

E-265

To Pasadena July 7 by Harrington (box #4)

O, E-266 through O, E-277 To Pasadena July 12 - Kelly

O, E-278 through O, E-290 To Pasadena July 16 - Kelly



Run 21

## Plate Record

Date	Em. Type	EM. No.	Total	Good	Break	Remarks
June 23/24	423,887	103a-E	3	3	0	
" 24/25	"	"	5	5	0	
" 25/26	458,884	103a-O	1	1	0	
" "	449,766	103a-E	1	1	0	
" "	423,887	103a-E	1	1	0	
" 26/27	458,884	103a-O	1	1	0	
" "	449,766	103a-E	1	1	0	
" "	423,887	"	4	4	0	Tested
" 27/28	449,766	"	2	2	0	423,887 20
" "	458,884	103a-O	2	2	0	
" "	423,887	103a-E	2	2	0	
" 28/29	458,884	"	1	1	0	Summary
" "	449,766	103a-E	1	1	0	Break:
" 29/30	"	"	1	1	0	423,887 0
" "	458,884	103a-O	1	1	0	449,766 10
July 1/5	449,766	103a-E	2	2	0	458,884 1
" "	458,884	103a-O	4	4	0	
" 5/6	"	"	4	4	0	
" "	449,766	103a-E	5	4	1	
" 6/7	"	"	5	2	3	(2 broke in box)
" "	458,884	103a-O	4	4	0	
" "	449,766	103a-E	4	4	0	
July 7/8	458,884	103a-O	4	3	1	over size
" "	449,766	103a-E	4	4	0	
" "	423,887	103a-E	2	2	0	
July 8/9	423,887	103a-E	2	2	0	
" "	449,766	"	6	3	3	
" "	458,884	103a-O	3	3	0	
July 9/10	449,766	103a-E	4	3	1	
" "	458,884	103a-O	4	4	0	July 10/14
July 10/11	"	"	1	1	0	103a-E 449,766
" "	449,766	103a-E	4	4	0	total Good Break
" "	458,884	103a-O	2	2	0	4 3 1 (Broken in box)
July 11/12	"	"	2	2	0	
" "	449,766	103a-E	2	2	0	
July 12/13	"	"	4	3	1	

Run No. 22

48" Schmidt

## Observing Schedule

	Date	Start Work	Stop Work	No. of Plates	No. of Servo Pair	Observer	Remarks	Sky	Seeing
Mon	July 23/24	E: 8:41	Mr 10:06	3	0	Wi		Clear	2+
	24/25	8:40	10:33	3	1	"	Storm started at 10:30	Clear	2-3
	25/26	8:39	11:02	4	2	"	Very Bright Sky	Clouds	1-2
	26/27	8:37	11:35	6	0	"		Clouds	2-3
	27/28	8:36	12:12	0	0	"	Storm on 28 <sup>th</sup>	Overcast	
	28/29	8:35	12:54	13	0	"	cleared at evening	wet sky Clear	2-3+
	29/30	8:34	1:43	4	2	"	cleared by 10:30	Clear	2-3+
	30/31	8:33	2:38	7	3	"	Thin clouds at times		2-3+
	July 31/Aug 1	8:32	3:35	0	0	"	Overcast until 11:30	thin clouds	
	Aug 1/2	8:31	D 8:40	6	0	"	Overcast and thin clouds		1-2+
	2/3	8:30	3:41	6	0	Wi Ha	" " " "		2-3
	3/4	8:29	3:42	1	0	" "	clouds & thin clouds		2-3
	4/5	8:28	3:43	11	4	" "		clear	<1-3
	5/6	8:27	3:43	12	5	" "	clear		<1-2
	6/7	Ms 8:42	3:44	8	3	"		clear	<1-2
	7/8	9:14	3:44	8	4	"		"	1-3+
	8/9	9:43	3:45	0	0	"	N.W. wind	"	<1-1
	9/10	10:16	3:46	6	3	"		"	1-2
	10/11	10:58	3:46	4	2	"		"	1-2+
	11/12	11:48	3:48	0	0	"		"	<1
Mon	12/13	0:48	3:48	4	2	"		"	2+52-
	<del>13/14</del>	<del>1:59</del>	<del>3:48</del>	<del>106</del>	<del>31</del>				
	<del>14/15</del>	<del>Ms 2:14</del>	<del>3:49</del>						
	21 nights								

Run No. 23:

Wed Aug 22 - Mon <sup>Sept</sup> Aug 3Mon ~~Sept 3~~Thur Aug 30 - Wed <sup>Sept</sup> 't 12

# Observing Log

Run No. 22

A = accept  
R = reject  
c = card  
✓ = final

Date	Program	Plate No.	Emulsion Type	Emulsion No.	$\alpha$	$\delta$	Remarks		
July 23/24	Survey	E-291	103a-E	449,766	3	roke in	Telescope		
	Focus	F-1	103a-O	458,884	PH-3	direct			
	"	F-2	103a-E	423,887	PH-1 + #36		Cap replaced		
July 24/25	Survey	O-291	103a-O	458,884	17°36'	+6°	focus!	em. del.	R ✓ c
	"	E-291	103a-E	449,766	"	"	emulsion pressure marks		R ✓ c
	Minkowski	PS-455	103a-O	458,884	Same as Survey 285				
July 25/26	Survey	O-292	103a-O	458,884	17°12'	-12°	seeing focus	bright sky	(R) ✓ c
	"	E-292	103a-E	449,766	"	"	seeing	"	(R) ✓ c
	"	O-293	103a-O	458,884	18°48'	-18°	clouds - seeing		R ✓ c
	"	E-293	103a-E	449,766	"	"	exposure short on account of clouds		R ✓ c
July 26/27	Focus	F-3	103a-O	458,884	PH-3	Direct	$\delta = +14°$		
	"	F-4	"	"	"	"	$\delta = -14°$		
	"	F-5	103a-E	423,887	PH-1 + #36		$\delta = -14°$		
	"	F-6	"	"	"	"	$\delta = +11°$		
	"	F-7	103a-O	458,884	PH-2	Direct	$\delta = +13°$		
	"	F-8	103a-E	423,887	PH-4	Direct	$\delta = +12°$		
July 27/28			No Observations				$\delta$		
July 28/29	Test 1	F-9	103a-O	449,667	PH-1	Direct	-18°		
		F-10	"	"	"	"	-18° N (From North)		
		F-11	"	"	"	"	+30		
		F-12	"	"	"	"	+30 N		
		F-13	"	"	"	"	+18		
		F-14	"	"	"	"	+18 N		
		F-15	"	"	"	"	+6		
		F-16	"	"	"	"	+6 N		
		F-17	"	"	"	"	-6		
		F-18	"	"	"	"	-6 N		
		F-19	103a-E	423,887	"	+ #36	-6		
		F-20	"	"	PH-4	Direct	+12		
		F-21	103a-O	449,667	PH-2	"	+12		
July 29/30	Survey	O-294	103a-O	458,884	17°36'	-12°	SW corner out of focus		A c
	"	E-294	103a-E	449,766	"	"			A c
	"	O-295	103a-O	458,884	21°12'	+18°	SW corner out of focus		A Blue c
	"	E-295	103a-E	449,766	"	"	center - out of focus eggs		A blue c
July 30/31	Focus	F-22	103a-E	423,887	PH-1 + #82		c. + 10°		
	Survey	O-296	103a-O	458,884	18°24'	-12°			A c
	"	E-296	103a-E	449,766	"	"			A c



Run No. 22

A = accept  
R = reject  
✓ = final  
c = card

Date	Program	Plate No	Emulsion Type	Emulsion No.	$\alpha$	$\delta$	Remarks		
July 30/31	Survey	O-297	103a-0	458,884	20 <sup>h</sup> 0 <sup>m</sup>	0°		A	c
	"	E-297	103a-E	449,766	"	"		A	c
	"	O-298	103a-0	458,884	21 <sup>h</sup> 12 <sup>m</sup>	+12°		A	c
	"	E-298	103a-E	449,766	"	"		A	c
July 31/Aug 1			No	Observations					
Aug 1/2	Focus	F-23	103a-0	449,667	PH-1	Direct			
	"	F-24	103a-0	"	PH-2	"			
	"	F-25	"	"	PH-3	"			
	"	F-26	"	"	PH-4	"			
	"	F-27	103a-E	449,766	PH-1	+ #37			
	"	F-28	"	423,887	PH-1	+ #38			
Aug 2/3	Focus	F-29	103a-0	449,667	PH-2	Direct			
	"	F-30	103a-0	"	PH-3	Direct			
	Zwicky	PS-456	103a-0	"	23 <sup>h</sup> 59 <sup>m</sup>	+64°20'			
	"	PS-457	"	"	23 <sup>h</sup> 17 <sup>m</sup>	+13°30'			
	"	PS-458	"	458,884	23 <sup>h</sup> 17 <sup>m</sup>	+7°42'			
	"	PS-459	103a-E	449,766	23 <sup>h</sup> 59 <sup>m</sup>	+64°20'			
Aug 3/4	Survey	QO-1	103a-0	458,884	S.A. 61	Exposure Test.			
Aug 4/5	Survey	O-299	103a-0	458,884	17 <sup>h</sup> 36 <sup>m</sup>	-6°	Seeing focus?	A	c
	"	E-299	103a-E	449,766	"	"	"	A	c
	"	O-300	103a-0	458,884	18 <sup>h</sup> 24 <sup>m</sup>	-6°	Seeing	A	blue c
	"	E-300	103a-E	449,766	"	"	"	A	" c
	"	O-301	103a-0	458,884	19 <sup>h</sup> 36 <sup>m</sup>	-6°	Seeing?	R	c
	"	E-301	103a-E	449,766	"	"	" eggs	R	c
	"	O-302	103a-0	458,884	21 <sup>h</sup> 12 <sup>m</sup>	-12°	Seeing or focus?	R	c
	"	E-302	103a-E	449,766	"	"	"	R	c
	Zwicky	PS-460	103a-0	449,667	23 <sup>h</sup> 17 <sup>m</sup>	+13°38'			
	"	PS-461	103a-0	"	23 <sup>h</sup> 17 <sup>m</sup>	+7°			
	"	PS-462	103a-E	449,766	0 <sup>h</sup> 21 <sup>m</sup>	+64°			
Aug 5/6	Comet	PS-463	103a-0	449,667	17 <sup>h</sup> 41 <sup>m</sup>	-6°			
"	Zwicky	PS-464	"	458,884	23 <sup>h</sup> 17 <sup>m</sup>	+7°			
"	Survey	O-303	"	<del>449,766</del>	18 <sup>h</sup> 24 <sup>m</sup>	0°	focus	R	red c
"	"	E-303	103a-E	449,766	"	0°	guiding	R	red c
"	"	O-304	103a-0	458,884	19 <sup>h</sup> 56 <sup>m</sup>	-24°		A	c
"	"	E-304	103a-E	449,766	"	"	Diff. ref. eggs	A	c
"	"	O-305	103a-0	458,884	20 <sup>h</sup> 48 <sup>m</sup>	0°		A	c
"	"	E-305	103a-E	449,766	"	"		A	c



Totals exposed:

449,766	36
458,884	39
423,887	8
449,667	<u>23</u>
	106 ✓

A = Accept  
R = Reject  
✓ = final  
c = Card

Date	Program	Plate No.	Emulsion Type	Emulsion No.	$\alpha$	$\delta$	Remarks		
Aug. 5/6	Survey	O-306	103a-o	458,884	23 <sup>h</sup> 12 <sup>m</sup>	-6°		A	c
"	"	E-306	103a-E	449,766	"	"	NE corner slightly out of focus	A	c
"	"	O-307	103a-o	458,884	0 <sup>h</sup> 0 <sup>m</sup>	-6°	Broke during Processing	R	c
"	"	E-307	103a-E	449,766	"	"	good definition	R	c
Aug. 6/7	"	O-308	103a-o	458,884	18 <sup>h</sup> 48 <sup>m</sup>	-12°	focus SW corner	A(6)	c
"	"	E-308	103a-E	449,766	"	"		A(6)	c
"	"	O-309	103a-o	458,884	20 <sup>h</sup> 24 <sup>m</sup>	-6°	slight focus	A(6)	c
"	"	E-309	103a-E	449,766	"	"	slight elongation	A(6)	c
"	"	O-310	103a-o	458,884	21 <sup>h</sup> 36 <sup>m</sup>	-6°	SW focus	A(6)	c
"	"	E-310	103a-E	449,766	"	"	focus	A(6)	c
"	Comet	PS-465	103a-o	449,687	17 <sup>h</sup> 41 <sup>m</sup>	-6°			
"	Zwicky	PS-466	103a-E	449,766	0 <sup>h</sup> 0 <sup>m</sup>	+67°			
Aug. 7/8	Survey	O-311	103a-o	458,884	20 <sup>h</sup> 48 <sup>m</sup>	+12°		A	c
"	"	E-311	103a-E	449,766	"	"	Motion in declination	A	c
"	"	O-312	103a-o	458,884	22 <sup>h</sup> 0 <sup>m</sup>	-6°		A	c
"	"	E-312	103a-E	449,766	"	"		A	c
"	"	O-313	103a-o	458,884	23 <sup>h</sup> 12 <sup>m</sup>	+12°	SW focus	A	c
"	"	E-313	103a-E	449,766	"	"		A	c
"	"	O-314	103a-o	458,884	0 <sup>h</sup> 24 <sup>m</sup>	-6°		A	c
"	"	E-314	103a-E	449,766	"	"		A	c
Aug. 8/9	No	Observations							
Aug. 9/10	Survey	O-315	103a-o	458,884	20 <sup>h</sup> 24 <sup>m</sup>	+6°	SW focus	A	c
"	"	E-315	103a-E	449,766	"	"		A	c
"	"	O-316	103a-o	458,884	23 <sup>h</sup> 12 <sup>m</sup>	+6°	SW focus	A	c
"	"	E-316	103a-E	449,766	"	"		A	c
"	"	O-317	103a-o	458,884	0 <sup>h</sup> 24 <sup>m</sup>	+18°	SW focus	A(6)	c
"	"	E-317	103a-E	449,766	"	"	Bad eggs	A(6)	c
Aug. 10/11	"	O-318	103a-o	458,884	23 <sup>h</sup> 36 <sup>m</sup>	+12°		A	c
"	"	E-318	103a-E	449,766	"	"	spotted	A	c
"	"	O-319	103a-o	458,884	0 <sup>h</sup> 0 <sup>m</sup>	0°	flecked	A	c
"	"	E-319	103a-E	449,766	"	"	"	A	c
Aug. 11/12	No	Observations							
Aug. 12/13	Survey	O-320	103a-o	458,884	23 <sup>h</sup> 12 <sup>m</sup>	+18°		A	c
"	"	E-320	103a-E	449,766	"	"		A	c
"	"	O-321	103a-o	458,884	0 <sup>h</sup> 24 <sup>m</sup>	-18°	focus limit?	R	c
"	"	E-321	103a-E	449,766	"	"	emulsion defects	R	c

# Run No. 22 - Supply Record

On hand beginning of run: July 23/24 1951

D-19	Naccotix Conc.	Naccotix	Acetic Acid				
2 2/3 gal	2 1/2 gal	0	1 gal				July 24
	200"	48"	Opas	box	Total		32 458,884
420,649	—	5	—	—	20		32 449,766
423,887	—	10	—	—	40		from 200"
449,667	94	—	—	—	376		
449,766	18	1	—	—	76		July 27, 16" 449,667
449,767	32	—	—	—	128		103a-0
449,768	27	—	—	—	108		from 200" to 48"
458,884	52	4	—	—	344		

Received July 23: July 24  
 Naccotix 9 gal 4 gal?  
 D-19 16 gal 44 gal 28 gal?  
 1 gal acetic acid  
 Naccotix Conc. (may be some Naccotix)

Correct Totals: July 24. also 4 gal D-19  
 D-19 NC N AA 4 gal Naccotix Conc  
 62 2/3 gal 46 gal 15 gal 2 gal to 200"

July 26 2 gal D-19 2 gal Naccotix Conc → 18"  
 Aug 2 16 boxes of 103a-0 449,667 from 200"

ON HAND END OF RUN Aug. 12-1951

420,649	—	5	—	—	20	✓	
423,887	—	8	—	—	32	✓	
449,667	74	13	3	—	351	✓	<del>103a-0</del>
449,766	—	7	3	1	32		<del>103a-0</del>
449,767	32	—	—	—	128	✓	
449,768	27	—	—	—	108	✓	
458,884	72	4	—	1	305	✓	

D-19 34 gal.  
 Naccotix 13 gal.  
 Nacc. Conc. 42 gal  
 Acetic Acid 1 1/2 gal.

Rum No. 22  
Plate Log

Date	Emulsion	Emulsion No.	Total No. Tested	Break	Good	Remarks
July 23, 1951	103a-E	423,887	2	0	2	
"	"	449,766	1	0	1	Broke in Telescope
"	103a-O	458,884	1	0	1	
July 24	"	"	2	0	2	
"	103a-E	449,766	1	0	1	
July 25	"	"	2	0	2	
"	103a-O	458,884	2	0	2	
July 26	103a-E	423,887	2	0	2	
July 28	103a-O	449,667	12	1	11	
"	103a-E	423,887	2	0	2	
July 29	"	449,766	4	1	3	
"	103a-O	458,884	3	0	3	
July 30	103a-O	"	2	0	2	
"	103a-E	449,766	4	1	3	
"	"	423,887	2	0	2	
Aug 1	103a-O	449,667	4	0	4	
Aug 2	"	"	4	0	4	Totals
"	"	458,884	1	0	1	Tested Break Good
"	103a-E	449,766	6	4	2	449,766 45 7 38
Aug 3	103a-O	458,884	2	0	2	458,884 87 0 87
" 4	103a-E	449,766	4	0	4	423,887 8 0 8
" "	103a-O	458,884	4	0	4	449,667 25 1 24
" "	103a-O	449,667	2	0	2	Total 115 8 107
Aug. 5	103a-E	449,766	6	0	6	
"	103a-O	449,667	2	0	2	
"	"	458,884	5	0	5	
Aug. 6	"	"	4	0	4	
"	103a-E	449,766	5	0	5	
"	103a-O	449,667	1	0	1	
Aug. 7	"	458,884	4	0	4	
"	103a-E	449,766	4	0	4	
Aug. 8	"	"	3	0	3	
"	103a-O	458,884	3	0	3	
Aug. 10	"	"	2	0	2	
"	103a-E	449,766	3	1	2	1 Broken in box
Aug. 11	"	"	2	0	2	
"	103a-O	458,884	2	0	2	



Run No. 23

48" Schmidt  
Observing Schedule

	Date	Start Work	Stop Work	No. of Plates	No. of Survey Air	Observer	Remarks	Sky	Seeing
Wed.	Aug. 22/23	E: 8:03	Mr. 9:32	4	1	Wi		Thin haze	<1 to 2+
	23/24	8:01	10:08	3	1	"	wet	Clear	<1 to 2
	24/25	7:59	10:50	4	2	"		"	<1 to 3
	25/26	7:57	11:37	7	3	"	windy	"	<1 to 2
	26/27	7:55	0:29	0	0	"	Storm	Overcast	<1
	27/28	7:53	1:26	0	0	"	"	"	<1
	28/29	7:51	2:26	0	0	"	"	"	-
	29/30	7:50	3:26	0	0	"	"	wet	<1
	30/31	7:49	0 4:07	4	2	"	wet	Clear	<1 to 2+
Aug 31/Sept 1	7:48	4:08	13	6	"			Clear	<1 to 3
Sept 1/2	7:47	4:09	6	3	Wi - Ha			"	<1 - 2
2/3	7:46	4:10	13	6	Ha			"	2-3-1
<del>3/4</del>	7:45	4:11	12	5	"			"	2-3-1
4/5	Ms 7:46	4:12	12	6	"			"	2+-1
5/6	8:19	4:12	2	1	"			"	2-<1
6/7	8:56	4:13	<del>2</del> 5	2	"			"	2-<1
7/8	9:43	4:14	8	4	"			"	2-3+
8/9	10:39	4:14	8	4	"			"	2-3+
9/10	11:44	4:15	6	3	"	WATER FILTER CHANGED			2-3+
10/11	12:55	4:16	0	0	"			"	<1
11/12	2:08	4:16	2	1	"			"	2-3+
Nights	21			109	50				
						Good nights 16			

# Observing Log

33

Run No 23

A = accept  
R = reject  
c = card  
✓ = final

Date	Program	Plate No.	Emulsion Type	Emulsion No.	$\alpha$	$\delta$	Remarks		
Aug 22/23	Survey	O-322	103a-O	458,884	18° 48'	+12°	seeing, focus?	R	c
	"	E-322	103a-E	449,766	"	"	" dist. failure	R	c
	Focus	F-1	103a-O	449,667	PH-1	focus	plate		
	"	F-2	103a-O	"	PH-4	focus	plate		
Aug 23/24	Survey	O-323	103a-O	458,884	19° 12'	0°	seeing	ALB	c
	"	E-323	103a-E	449,766	"	"	"	ALW	c
	Test	E-323'	103a-E	449,767	"	"			
Aug 24/25	Survey	O-324	103a-O	458,884	18° 0'	+42°	seeing declination drift	R	c
	"	E-324	103a-E	449,766	"	"	" scratches	R	c
	"	O-325	103a-O	458,884	20° 0'	+12°		A	c
	"	E-325	103a-E	449,766	20° 0'	"		A	c
Aug 25/26	Survey	O-326	103a-O	458,884	18° 12'	-24°	seeing	A	c
	"	E-326	103a-E	449,766	"	"		A	c
	"	O-327	103a-O	458,884	19° 12'	-6°	"Music Note" emulsion defect	R	
	"	E-327	103a-E	449,766	"	"	seeing	Ru	c
	"	O-327'	103a-O	458,884	"	"	" eggs	Ru	c
	"	O-328	103a-O	"	20° 48'	-12°	cracked, seeing	R	c
	"	E-328	103a-E	449,766	"	"	"	R	c
Aug 26/27	Survey	No	Observations						
Aug 27/28	Survey	No	Observations						
Aug 28/29	No	Observations							
Aug 29/30	No	Observations							
Aug 30/31	Survey	O-329	103a-O	458,884	0° 26'	+24°	Scratch - worms	R	c
	"	E-329	103a-E	449,766	"	"	contour?	R	c
	"	O-330	103a-O	458,884	1° 44'	+24°	seeing worms	Ru	c
	"	E-330	103a-E	449,766	"	"	" eggs	Ru	c
Aug 31/Sept 1	Survey	O-331	103a-O	458,884	19° 12'	-12°	Flecks seeing (J.W. corner)	A	c
	"	E-331	103a-E	449,766	"	"		A	c
	"	O-332	103a-O	458,884	20° 22'	+30°	focus SW	A	c
	"	E-332	103a-E	449,766	"	"	elongations NW eggs	Ar	c
	"	O-333	103a-O	458,884	22° 0'	+12°	flashes worms background	Ru	c
	"	E-333	103a-E	449,766	"	"	spotches eggs	Ru	c
	"	E-333'	103a-E	449,767	"	"			
	"	O-334	103a-O	458,884	23° 36'	-18°	limit	Ar	c
	"	E-334	103a-E	449,766	"	"	" spotted, eggs	Ar	c
	"	O-335	103a-O	458,884	0° 48'	-18°	worms, dust	Ru	c
	"	E-335	103a-E	449,766	"	"	spotches	Ru	c

# Observing Log

70

Run No. 23

A = accept

R = reject

c = card

v = final

Date	Program	Plate No.	Emulsion Type	Emulsion No.	$\alpha$	$\delta$	Remarks	
Aug 21, Sept 1.	Survey	O-336	103a-o	458,884	2 <sup>h</sup> 48 <sup>m</sup>	0°	dust, worms	Ar c
"	"	E-336	103a-E	449,766	"	"	splotches, eggs	Ar c
Sept 1/2	Survey	O-337	103a-o	458,884	23 <sup>h</sup> 12 <sup>m</sup>	-12°	dust	Ar c
"	"	E-337	103a-E	449,766	"	"	light leak, dust, splotches	Ar c
"	"	O-338	103a-o	458,884	0 <sup>h</sup> 48 <sup>m</sup>	-12°	worm	Ru c
"	"	E-338	103a-E	449,766	"	"	light leak, dust, eggs	Ru c
"	"	O-339	103a-o	458,884	2 <sup>h</sup> 24 <sup>m</sup>	0°	music, dust, worms	R c
"	"	E-339	103a-E	449,766	"	"	eggs	R c
Sept. 2/3	PS-467	—	103a-o	449,667	19 <sup>h</sup> 50 <sup>m</sup>	+36°		
"	Survey	O-340	103a-o	458,884	19 <sup>h</sup> 0 <sup>m</sup>	+42°		A c
"	"	E-340	103a-E	449,766	"	"	eggs	A c
"	"	O-341	103a-o	458,884	20 <sup>h</sup> 24 <sup>m</sup>	-12°	music, dust	Ru c
"	"	E-341	103a-E	449,766	"	"	eggs splotches	Ru c
"	"	O-342	103a-o	458,884	12 <sup>h</sup> 0 <sup>m</sup>	-18°	music, dust	Ar c
"	"	E-342	103a-E	449,766	"	"	eggs splotches	Ar c
"	"	O-343	103a-o	458,884	23 <sup>h</sup> 12 <sup>m</sup>	-18°	dust	A c
"	"	E-343	103a-E	449,766	"	"	eggs splotches	A c
"	"	O-344	103a-o	458,884	0 <sup>h</sup> 48 <sup>m</sup>	-6°	dust, music	R c
"	"	E-344	103a-E	449,766	"	"	Power failure - splotches	R c
"	"	O-345	103a-o	458,884	1 <sup>h</sup> 24 <sup>m</sup>	-6°		R c
"	"	E-345	103a-E	449,766	"	"	specks, fogged, eggs	R c
Sept 3/4	PS-468	—	103a-E	449,766	19 <sup>h</sup> 50 <sup>m</sup>	+36°		
"	PS-469	—	103a-o	449,667	23 <sup>h</sup> 17 <sup>m</sup>	+7°		
"	Survey	O-346	103a-o	458,884	20 <sup>h</sup> 0 <sup>m</sup>	+6°		R c
"	"	E-346	103a-E	449,766	"	"	fogged	R c
"	"	O-347	103a-o	458,884	21 <sup>h</sup> 36 <sup>m</sup>	-12°	music, dust	Ar c
"	"	E-347	103a-E	449,766	"	"	eggs splotches	Ar c
"	"	O-348	103a-o	458,884	23 <sup>h</sup> 12 <sup>m</sup>	0°	music, dust	R c
"	"	E-348	103a-E	449,766	"	"	streaks, East edge out of focus	R c
"	"	O-349	103a-o	458,884	1 <sup>h</sup> 36 <sup>m</sup>	-18°	dust	A c
"	"	E-349	103a-E	449,767	"	"	d	A c
"	"	O-350	103a-o	458,884	2 <sup>h</sup> 48 <sup>m</sup>	+6°	dust	A c
"	"	E-350	103a-E	449,767	"	"	splotches	A c
Sept. 4/5	Survey	O-351	103a-o	458,884	20 <sup>h</sup> 0 <sup>m</sup>	-18°	splotches	Ar c
"	"	E-351	103a-E	449,767	"	"	splotches	Ar c
"	"	O-352	103a-o	458,884	20 <sup>h</sup> 48 <sup>m</sup>	-18°	worms, dust	A c
"	"	E-352	103a-E	449,767	"	"	Power failure	A c



# observing Log

Run No. 23

105

A = Accept

R = Reject

C = Card

v = final

Date	Program	Plate No.	Emulsion Type	Emulsion No.	$\alpha$	$\delta$	Remarks	
Sept. 4/5	Survey	O-353	103a-o	458,884	22 <sup>h</sup> 0 <sup>m</sup>	0°	dust	A c
"	"	E-353	103a-E	449,767	"	"	splotches	A c
"	"	O-354	103a-o	458,884	23 <sup>h</sup> 36 <sup>m</sup>	-12°	dust, worms, music	Ru c
"	"	E-354	103a-E	449,767	"	"	splotches	Ru c
"	"	O-355	103a-o	458,884	0 <sup>h</sup> 48 <sup>m</sup>	+18°		Ar c
"	"	E-355	103a-E	449,767	"	"	splotches	Ar c
"	"	O-356	103a-o	458,884	2 <sup>h</sup> 0 <sup>m</sup>	-6°	nebularity? music	Ru c
"	"	E-356	103a-E	449,767	"	"		Ru c
Sept. 5/6	"	O-357	103a-o	458,884	21 <sup>h</sup> 36 <sup>m</sup>	0°	dust	Ar c
"	"	E-357	103a-E	449,766	"	"	light leak, splotches, eggs	Ar c
Sept. 6/7	"	O-358	103a-o	458,884	10 <sup>h</sup> 48 <sup>m</sup>	-6°		Ar c
"	"	E-358	103a-E	449,767	"	"	light NW, light leak, splotches	Ar c
"	"	O-359	103a-o	458,884	22 <sup>h</sup> 48 <sup>m</sup>	-12°	dust, light leak	R c
"	"	E-359	103a-E	449,767	"	"	dust, light leak, splotches	R c
"	SA. 71	PS-470	103a-o	458,884	3 <sup>h</sup> 14 <sup>m</sup> 30 <sup>s</sup>	+15° 13' 54"	scratch, music	Ar c
Sept. 7/8	Survey	O-360	103a-o	458,884	21 <sup>h</sup> 36 <sup>m</sup>	+6°	light leak, splotches	R c
"	"	E-360	103a-E	449,767	"	"		R c
"	"	O-361	103a-o	458,884	23 <sup>h</sup> 36 <sup>m</sup>	+18°	music	A c
"	"	E-361	103a-E	449,767	"	"	splotches	A c
"	"	O-362	103a-o	458,884	1 <sup>h</sup> 36 <sup>m</sup>	0°		A c
"	"	E-362	103a-E	449,767	"	"		A c
"	"	O-363	103a-o	458,884	3 <sup>h</sup> 12 <sup>m</sup>	0°		A c
"	"	E-363	103a-E	449,767	"	"	splotches	A c
Sept. 8/9	"	O-364	103a-o	458,884	22 <sup>h</sup> 24 <sup>m</sup>	0°	worms	Ar c
"	"	E-364	103a-E	449,767	"	"	splotches, eggs	Ar c
"	"	O-365	103a-o	458,884	0 <sup>h</sup> 0 <sup>m</sup>	-18°		A c
"	"	E-365	103a-E	449,767	"	"	splotches	A c
"	"	O-366	103a-o	458,884	1 <sup>h</sup> 18 <sup>m</sup>	-24°		A c
"	"	E-366	103a-E	449,767	"	"	shocks	A c
"	"	O-367	103a-o	458,884	2 <sup>h</sup> 36 <sup>m</sup>	-24°		A c
"	"	E-367	103a-E	449,767	"	"	shocks, splotches	A c
Sept. 9/10	"	O-368	103a-o	458,884	23 <sup>h</sup> 48 <sup>m</sup>	+48°		Ar c
"	"	E-368	103a-E	449,767	"	"	slight streak in R.A.	Ar c
"	"	O-369	103a-o	458,884	1 <sup>h</sup> 12 <sup>m</sup>	-18°	music - crackles	R c
"	"	E-369	103a-E	449,767	"	"	shocks	R c



# Observing Log

## Run No. 13

A = Accept  
R = Reject  
C = Card  
✓ = final

Date	Program	Plate No.	Emulsion Type	Emulsion No.	$\alpha$	$\delta$	Remarks	
Sept. 9/10	Survey	O-370	103a-o	458,884	1 <sup>h</sup> 10 <sup>m</sup>	-24°	fogged	A, c
"	"	E-370	103a-E	449,767	"	"	eggs	A, c
Sept. 10/11	No Observations							
Sept. 11/12	Survey	O-371	103a-o	458,884	1 <sup>h</sup> 48 <sup>m</sup>	-6°	contort <sup>d</sup> , blue dark	A, c
"	"	E-371	103a-E	449,767	"	"	shakes	A, c
			109 plates exposed					
		458,884	52					
		449,766	29					
		449,667	4					
		449,767	24					
			109					

Run No. 23  
Supply Record

On hand beginning of run: Aug 22/23, 1951

D-19	Naccosix Conc.	Naccosix	Acetic Acid		
34 2/3 gal	42 gal	13 gal	1 2/3 gal		
Plates	200"	48"	Open box	Total	
420,644	—	5	—	—	20
423,887	—	8	—	—	32
449,667	<del>74</del> 74	13	3 plates	—	351 ✓
449,766	—	7	3 plates	1 plate	32
449,767	32	—	—	—	128
449,768	27	—	—	—	108
458,884	72	4	—	1 plate	305

Aug. 22 : 2 gal of D-19 to 200"

Aug. 23 6 boxes of 458,884 from 200"

2 boxes of 449,767 from 200"

Aug. 31 2 gal of D-19, 2 gal Naccosix Conc. to 18"

Sept 1. 8 gal D-19 from Pasadena via Harrington

ON HAND END OF RUN Sept. 12 - 1951

D-19	Naccosix Conc.	Naccosix	Acetic Acid			Used.
26 gal	34 gal	11 gal	1 gal			
420,644	—	5	—	—	20 ✓	0
423,887	—	8	—	—	32 ✓	0
449,667	74	13	—	—	348 ✓	1 extra ? 4
449,766	—	—	—	—	—	1 missing ? 32
449,767	22	3	1	1	102	2 missing 26
449,768	27	—	—	—	108 ✓	0
458,884	58	4	—	1	249 ✓	56

Run 238

Asteroid:

Date	No. of plates	Observer				
Sept 13/14	8	Minkowski-Wilson	Ring	3-4	Full Moon	
Sept 14/15	1	"	"	2-3	"	haze

Date	Program	Plate No.	Emulsion Type	Emulsion No.	$\alpha$	$\delta$	Remarks
Sept 13/14	Asteroid	PS-471	103a-E	423,887	22 <sup>h</sup> 15 <sup>m</sup>	+30°	Search
"	"	PS-472	"	"	22 <sup>h</sup> 40 <sup>m</sup>	"	"
"	"	PS-473	"	"	23 <sup>h</sup> 5 <sup>m</sup>	"	"
"	"	PS-474	"	"	23 <sup>h</sup> 30 <sup>m</sup>	"	"
"	"	PS-475	"	"	23 <sup>h</sup> 55 <sup>m</sup>	"	"
"	"	PS-476	"	"	0 <sup>h</sup> 20 <sup>m</sup>	"	"
"	"	PS-477	"	"	0 <sup>h</sup> 45 <sup>m</sup>	"	Asteroid
"	"	PS-478	"	"	0 <sup>h</sup> 45 <sup>m</sup>	"	"
Sept 14/15	Asteroid	PS-479	"	"	"	"	"

ON HAND END OF RUN: Sept. 15, 1951

D-19	Naccofix conc.	Naccofix	Acetic Acid				Used
25 gal	34 gal	10 gal	1 gal				
plates	200"	48"	Open	box			
420,649	-	5	-	-	20	✓	
423,887	-	5	2	-	22	✓	10
449,667	24	18	-	-	348	1 exten ✓	
449,767	22	3	1	1	102	2 min 30 sec	
449,768	27	-	-	-	108	✓	
458,884	58	4	-	1	249	✓	

Run No. 23

Plate Log

Date	Emulsion	Emulsion No.	Total No. Tested	Broken	Good	Remarks
Aug 22, 1951	103a-O	449,667	2	-	2	
Aug 23	103a-E	449,767	2	-	2	
"	"	449,766	1	-	1	
"	103a-O	458,884	2	1	1	
"	"	449,667	1	-	1	
Aug. 24	103a-E	449,766	2	-	2	
"	103a-O	458,884	2	-	2	
Aug. 25	103a-E	449,766	4	-	4	
"	103a-O	458,884	6	1	5	
Aug 30	103a-O	458,884	6	2	4	2 broken in box
"	103a-E	449,766	4	-	4	
Aug 31	103a-O	458,884	3	-	3	
"	103a-E	449,766	3	-	3	
Sept. 1	"	"	7	2	5	
"	103a-O	458,884	5	-	5	
Sept. 2	103a-O	458,884	4	0	4	
"	103a-E	449,766	5	1	4	
" 3	"	"	5	2	3	
"	103a-O	458,884	6	0	6	
"	103a-E	449,767	3	0	3	
"	103a-O	449,667	1	0	1	
Sept. 4	103a-E	449,767	6	0	6	
"	103a-O	458,884	5	0	5	
Sept. 5	103a-E	449,767	5	0	5	
"	103a-O	458,884	5	0	5	
Sept. 6	"	"	1	0	1	
"	103a-E	449,767	1	0	1	
Sept. 7	"	"	1	0	1	
"	103a-O	458,884	2	0	2	
Sept. 8	"	"	4	0	4	
"	103a-E	449,767	4	0	4	
Sept. 9	"	"	3	0	3	
"	103a-O	458,884	3	0	3	
Sept. 10	"	"	2	0	2	
"	103a-E	449,767	2	0	2	
Sept 13	103a-E	423,887	89	1	8	
Sept 14	"	"	1	-	1	

Totals  
 449,667 5  
 449,767 27  
 449,766 31 5  
 458,884 56 4  
 423,887 10 1



# Observing Schedule

Run No. 24.

	Date	Start Work	Stop Work	No. of Plates	No. of Survey Air	Observers	Remarks	Sky	Seeing
Thur:	Sept. 20/21	E: 7:24	M: 8:44	4	1	Wi		Clear	1-2
	21/22	7:23	9:29	3	1	"		"	2-3
	22/23	7:22	10:20	5	2	"		"	2-4
	23/24	7:21	11:15	6	3	"		"	2-3
	24/25	7:19	12:13	6	3	"	Possible thin clouds	"	4-5
	25/26	7:17	1:13	8	4	"		"	2-4
	26/27	7:15	2:14	8	3	"	Water Filter changed	"	1-3
	27/28	7:13	3:14	0	0	"		Storm	
	28/29	7:11	4:16	6	2	"	Partly cloudy		<1-3
	29/30	7:10	D 4:29	14	6	"			2-4
Sept. 30/Oct 31	7:09	4:30		1	0	"	Overcast after 8:30		2
Mon.	Oct 1/2	7:08	4:30	2	0	Ha	Clouds-thick & thin		<1
	2/3	7:07	4:31	0	0	"	Clouds, Fog, Wind, Mist		
	3/4	7:06	4:32	8	2	"	Clear - Variable		<1-3-1
	4/5	Ms 7:41	4:33	5	1	"	Clear		<1-2-1
	5/6	8:34	4:34	0	0	"	High Wind, Muddy		<1
	6/7	9:36	4:35	5	0	"	" " Clear		<1
	7/8	10:45	4:36	1	0	"	Wind, thin Clouds		<1-2-<1
	8/9	11:57	4:37	1	0	"	Wind, heavy Clouds		1-2
	9/10	1:08	4:38	2	0	"	Light overcast		2-2-1
-	<del>10/11</del>	<del>2:16</del>	<del>4:39</del>	<del></del>	<del></del>	<del></del>	<del></del>	<del></del>	<del></del>
Thur	10			85	28				

Total Exposed: 85

420,649	1
458,884	35
449,667	16
449,767	<u>33</u>
	85

# Observing Log

Run No. 24

card = c  
V = final  
A  
Ar  
Ap  
Ru  
R

Date	Program	Plate No.	Emulsion Type	Emulsion No.	$\alpha$	$\delta$	Remarks	
Sept 20/21	Survey	O-372	103a-0	458,884	20 <sup>h</sup> 0 <sup>m</sup>	+18°	flashes, seeing, marginal dark oil, darkish nebulosities	Ru c
"	"	E-372	103a-E	449,767	"	"	" flicks, guiding dark	Ru c
"	Tests	F-1	103a-0	449,667	Focus	Plate	PH-1	
"	"	F-2	103a-0	"	"	"	PH-4	
Sept 21/22	Survey	O-373	103a-0	458,884	20 <sup>h</sup> 0 <sup>m</sup>	-12°	guid, dust	Ar c
"	"	E-373	103a-E	449,767	"	"	guid, splashes, music	Ar c
"	Asteroid	PS-480	103a-0	449,667	0 <sup>h</sup> 17 <sup>m</sup>	+32°		
Sept 22/23	Survey	O-374	103a-0	458,884	20 <sup>h</sup> 24 <sup>m</sup>	+12°	grease, focus, dust	R c
"	"	E-374	103a-E	449,767	"	"	grease, music	R c
"	"	O-375	103a-0	458,884	21 <sup>h</sup> 36 <sup>m</sup>	+18°	dust, grease, music	Ru c
"	"	E-375	103a-E	449,767	"	"	splashes, grease	Ru c
"	Asteroid	PS-481	103a-0	449,667	0 <sup>h</sup> 17 <sup>m</sup>	+32°		
Sept 23/24	Survey	O-376	103a-0	458,884	20 <sup>h</sup> 24 <sup>m</sup>	0°	grease	A c
"	"	E-376	103a-E	449,767	"	"	grease	A c
"	"	O-377	103a-0	458,884	21 <sup>h</sup> 14 <sup>m</sup>	-14°	dust, grease	Ar c
"	"	E-377	103a-E	449,767	"	"	grease	Ar c
"	"	O-378	103a-0	458,884	23 <sup>h</sup> 24 <sup>m</sup>	-24°	dust, grease	Ap c
"	"	E-378	103a-E	449,767	"	"	grease, large H.A. rotation?	Ap c
Sept 24/25	Survey	O-379	103a-0	458,884	20 <sup>h</sup> 48 <sup>m</sup>	-24°	clouds, dust, grease	R c
"	"	E-379	103a-E	449,767	"	"	splashes	R c
"	"	O-380	103a-0	458,884	22 <sup>h</sup> 06 <sup>m</sup>	-24°	dust, grease	Ru c
"	"	E-380	103a-E	449,767	"	"	" " splashes	Ru c
"	"	O-381	103a-0	458,884	23 <sup>h</sup> 50 <sup>m</sup>	-24°	music, dust, grease	Ru c
"	"	E-381	103a-E	449,767	"	"	splashes	Ru c
Sept 25/26	Survey	O-382	103a-0	458,884	20 <sup>h</sup> 24 <sup>m</sup>	-18°	music, grease	Ar c
"	"	E-382	103a-E	449,767	"	"	"	Ar c
"	"	O-383	103a-0	458,884	22 <sup>h</sup> 6 <sup>m</sup>	+30°	eggs, music, grease	A c
"	"	E-383	103a-E	449,767	"	"	"	A c
"	"	O-384	103a-0	458,884	23 <sup>h</sup> 36 <sup>m</sup>	+6°	grease - nebulosities?	Ru c
"	"	E-384	103a-E	449,767	"	"	" splashes	Ru c
"	"	O-385	103a-0	458,884	0 <sup>h</sup> 48 <sup>m</sup>	+12°	music, grease	Ar c
"	"	E-385	103a-E	449,767	"	"	splashes	Ar c
Sept 26/27	Survey	O-386	103a-0	458,884	20 <sup>h</sup> 48 <sup>m</sup>	+6°	light leak, grease	Ap c
"	"	E-386	103a-E	449,767	"	"	"	Ap c
"	"	O-387	103a-0	458,884	21 <sup>h</sup> 56 <sup>m</sup>	+36°	eggs, light leak	Ar c
"	"	E-387	103a-E	449,767	"	"	grease, oblique flicks	Ap c
"	"	O-387	103a-0	458,884	"	"	" eggs	Ap c

# Observing Log

C = Cass  
V = Final  
A  
A+  
Ap  
R+  
R

Date:	Program	Plate No.	Emulsion Type	Emulsion No.	$\alpha$	$\delta$	Remarks	Grade
Sep't. 26/27	Survey	O-388	103a-O	458,884	1 <sup>h</sup> 12 <sup>m</sup>	-6°	green, limit, eggs	Ru c
"	"	E-388	103a-E	449,767	"	"	filter, splat, green	Ru c
"	Test	PS-482	103a-O	458,884	3 <sup>h</sup> 54 <sup>m</sup>	+24°		
Sep't. 27/28			No Observations					
Sep't. 28/29	Test	PS-483	103a-E	449,767	20 <sup>h</sup> 22 <sup>m</sup>	+30°	Check on Survey pair 332	
"	"	F-3	103a-E	"	Focus	plate, filter No. 41		
"	Survey	O-389	103a-O	458,884	3 <sup>h</sup> 12 <sup>m</sup>	+6°	green	Ap c
"	"	E-389	103a-E	449,767	"	"	splat, red, red	Ap c
"	"	O-390	103a-O	458,884	4 <sup>h</sup> 0 <sup>m</sup>	-18°		c
"	"	E-390	103a-E	449,767	"	"		c
Sep't. 29/30	Special	PS-484	103a-O	458,884	20 <sup>h</sup> 15 <sup>m</sup>	+8° 30'		
"	Survey	O-391	103a-O	458,884	21 <sup>h</sup> 14 <sup>m</sup>	+30°		c
"	"	E-391	103a-E	449,767	"	"		c
"	"	O-392	103a-O	458,884	22 <sup>h</sup> 24 <sup>m</sup>	-12°		c
"	"	E-392	103a-E	449,767	"	"		c
"	"	O-392'	103a-O	458,884	"	"		c
"	"	O-393	103a-O	"	0 <sup>h</sup> 0 <sup>m</sup>	-12°		c
"	"	E-393	103a-E	449,767	"	"		c
"	"	O-394	103a-O	458,884	1 <sup>h</sup> 36 <sup>m</sup>	-12°		c
"	"	E-394	103a-E	449,767	"	"		c
"	"	O-395	103a-O	458,884	3 <sup>h</sup> 12 <sup>m</sup>	-6°		c
"	"	E-395	103a-E	449,767	"	"		c
"	"	O-396	103a-O	458,884	4 <sup>h</sup> 24 <sup>m</sup>	-18°		c
"	"	E-396	103a-E	449,767	"	"		c
Sep't. 30/Oct 1	Special	PS-485	103a-O	420,649	20 <sup>h</sup> 15 <sup>m</sup>	+8° 30'	"Green" test.	
Oct 1/2	Asteroid	PS-486	103a-O	449,667	3 <sup>h</sup> 10 <sup>m</sup>	+3°		
"	"	PS-487	103a-O	449,667	3 <sup>h</sup> 13 <sup>m</sup>	-7°		
Oct. 2/3	—	No Observations						
Oct. 3/4	Focus	F-4	103a-O	449,667	21 <sup>h</sup> 17 <sup>m</sup>	+9°		
"	"	F-5	"	"	"	"		
"	Survey	O-397	103a-O	458,884	22 <sup>h</sup> 48 <sup>m</sup>	+18°		c
"	"	E-397	103a-E	449,767	"	"		c
"	"	O-398	103a-O	458,884	0 <sup>h</sup> 28 <sup>m</sup>	+36°		c
"	"	E-398	103a-E	449,767	"	"		c
"	Asteroid	PS-488	103a-O	449,667	3 <sup>h</sup> 10 <sup>m</sup>	+1°		
"	"	PS-489	"	"	3 <sup>h</sup> 13 <sup>m</sup>	-8°		



# Observing Log

Date	Program	Plate No.	Emulsion Type	Emulsion No.	$\alpha$	$\delta$	Remarks	Grade
Oct. 4/5	Survey	O-399	103a-o	458,884	23 <sup>h</sup> 20 <sup>m</sup>	+36°		c
"	"	E-399	103a-E	449,762	"	"		c
"	Test	Q-0-1	103a-o	458,884	S.A. 68			
"	Asteroid	PS-490	"	449,667	3 <sup>h</sup> 10 <sup>m</sup>	0°		
"	"	PS-491	"	"	3 <sup>h</sup> 13 <sup>m</sup>	-9°		
Oct. 5/6	No Observations							
Oct. 6/7	PS-492	Zwicky	103a-E	449,767	0 <sup>h</sup> 56 <sup>m</sup>	-20°		
"	PS-493	"	103a-o	449,667	"	"		
"	PS-494	Comet	"	"	0 <sup>h</sup> 33 <sup>m</sup>	+36°		
"	PS-495	Asteroid	"	"	3 <sup>h</sup> 10 <sup>m</sup>	-3°		
"	PS-496	"	"	"	3 <sup>h</sup> 13 <sup>m</sup>	-9° 30'		
Oct. 7/8	PS-497	Comet	"	458,884	0 <sup>h</sup> 33 <sup>m</sup>	+36°		
Oct. 8/9	PS-498	"	"	"	"	"		
Oct. 9/10	Focus	F-6	103a-E	449,767	2 <sup>h</sup> 52 <sup>m</sup>	+12°	Filter #39	
"	"	F-7	"	"	"	"	" #42	

Run No. 24  
Supply Record

86

62

On hand beginning of run: Sept. 20, 1951					
D-19	Naccifix Conc.	Naccifix	Acetic Acid		
25 gal	74 gal	10 gal	1 gal		
Plater	200"	48"	Open	box	Total
420,649	-	5	-	-	20
423,887	-	5	2	-	22
449,667	74	12	3	-	347
449,767	22	8	1	1	102
449,768	27	-	-	-	108
458,884	58	4	-	1	249
					102 24 126
Sept. 20 Received 48 gallons of D-19					
Sept. 21	From	200" dome	8 boxes	103a-0	458,884
"	"	" "	" "	103a-E	449,767
Sept. 23	To	200" Dome	4 gal	D-19	4 gal Naccifix Conc.
Sept. 29	To	18" Dome	2 gal	O-19	2 gal " "
Sept. 30	From	200" dome	8 boxes	103a-0	458,884
"			"	103a-E	449,767
"	To	200"	2 gal	O-19	
Oct. 1	To	Paradana	1 box	103a-0	458,884
			"	103a-E	449,767
On Hand end of run Oct. 10, 1951					
D-19	Naccifix Conc.	Naccifix	Acetic Acid		
40 gal.	22 gal.	7 gal.	4 1/2 gal.		
Plates	200"	48"	Open	box	Total
420,649	-	4	2	-	18 ✓
423,887	-	5	2	-	22 ✓
449,667	74	7	-	-	329 ✓
449,767	6	9	3	1	64 -
449,768	26	1	-	-	108 ✓
458,884	42	7	3	1	200 ✓
Oct. 10	To	Paradana	1 box	449,667	103a-0

# Plate Log

## Run No. 24.

Date:	Emulsion Type	Emulsion No.	Total	Break	Good	Remarks
Sep 20	103a-0	449,667	3	-	3	
Sep 21	"	458,884	2	-	2	1 inspected *
Sep 21	103a-E	449,767	1	-	1	
Sep 22	103a-0	458,884	2	-	2	
"	103a-E	449,767	4	1	3	1 broken in box *
"	103a-0	449,667	1	-	1	
Sep 23	103a-0	458,884	1	-	1	inspected *
"	"	420,649	1	-	1	1 inspected *
"	103a-0	458,884	3	-	3	
"	103a-E	449,767	4	-	4	
Sep 24	103a-0	458,884	4	-	4	
"	103a-E	449,767	4	-	4	
Sep 25	103a-0	458,884	4	-	4	
"	103a-E	449,767	4	-	4	
Sep 26	103a-0	458,884	6	1	5	
"	103a-E	449,767	6	-	6	
Sep 28	103a-0	458,884	2	-	2	
Sep 29	"	"	8	1	7	broke after 31 sec
"	103a-E	449,767	6	-	6	
"	103a-0	458,884	4	1	3	Broken in box
Sep 30	"	"	2	-	2	
"	"	420,649	1	-	1	
Oct 1	103a-E	449,767	2	-	2	inspected
"	103a-0	449,667	2	-	2	
Oct 3	"	"	6	2	4	
"	"	458,884	4	0	4	
"	103a-E	449,767	4	0	4	
Oct 4	103a-0	449,667	2	0	2	Totals T B G
"	"	458,884	3	0	3	449,667 19 3 16
"	103a-E	449,767	3	0	3	458,884 45 3 42
Oct 6	103a-0	449,667	5	1	4	449,767 38 1 37
			104	1	97	420,649 2 0 2
						104 7 97

List of Plates Sent down for test  
Sept-23      Those started + 1      103a-o      456,884  
                and 2      103a-E      449,767

Sept. 23

Those shared

1

103a - 0

450, 884

and

2

1039 - E

449, 267

Oct. 1,

7

103a-0

458, 84

der

3

1

under

1

1039-E

44-9, 767

den

*r*

1

undeveloped



# Observing Schedule

Run No. 25.

Date	Start Work	Stop Work	No. of Plates	No. of Sunny Air	Observer	Remarks	Sky	Seeing
Oct. 20/21	E: 6:45	Mr: 9:05	4	1	Wi		clear	<1 to 1+
21/22	6:44	10:02	0	0	"		fog	<1
22/23	6:43	11:01	1	0	"	Wi broke wrist	clear	<1-2
23/24	6:42	12:01	0	0	"	Night Sky Meter <sup>in operation</sup>	thin clouds	2-4
24/25	6:41	1:00	0	0	"		Storm	
25/26	6:40	2:00	0	0	"		Storm	
26/27	6:39	3:01	0	0	"		wet	<1
27/28	6:38	4:04	0	0	"	High East Wind	Clear	<1
28/29	6:37	4:50	4	2	"	" " "	Clear	<1-3
29/30	6:36	4:51	0	0	Ha	Clouds, Showers, Mist		
30/31	6:35	4:51	0	0	"	" fog	"	
Oct 31/Nov 1	6:34	4:52	5	2	"	West Wind	clear	2-<1
Nov 1/2	Mr 6:32	4:52	0	0	"	High East Wind	Muddy	<1
2/3	7:28	4:53	7	3	"	Possible thin clouds East Breeze	clear	2-<1
3/4	8:37	4:53	11	5	"		clear	2-3+
4/5	9:48	4:54	7	3	"	N.W. Breeze	"	2-3-4+
5/6	10:59	4:54	2	0	"	East Wind	Muddy	<1
6/7	0:09	4:55	0	0	"	Overcast, heavy clouds		
7/8	1:14	4:55	6	3	"		clear	2
8/9	2:18	4:56	4	2	"		"	3-4
20 nights			51	21				

Run 26

Begin	Fri	Nov. 16	6:23	7:57	(no sooner)
End	Fri	Dec 9	Ms 1:21	D 5:21	(no later)
Change	Wed	28 Nov			
			Wi	17 to 28	
			Ha	28 to 8	

# Observing Log

Run No. 25.

Card  
A  
A  
A  
R  
R

Date	Program	Plate No.	Emulsion Type	Emulsion No.	$\alpha$	$\delta$	Remarks	Grade
Oct. 20/21	Survey	O-400	103a-0	458,884	21 <sup>h</sup> 36 <sup>m</sup>	+12°		
	"	E-400	103a-E	449,767	"	"		
	Test.	F-1	103a-0	449,667	Focus	plate	PH-4	
	"	F-2	"	"	"	"	PH-1	
Oct 21/22	No Observations							
Oct 22/23	Test	F-3	103a-0	449,667	Focus	Plate	PH-1	
Oct 23/24	Observations with NSM only							
Oct 24/25	No Observations							
Oct 25/26	No Observations							
Oct 26/27	No Observations							
Oct 27/28	No Observations							
Oct 28/29	Survey	O-401	103a-0	458,884	22 <sup>h</sup> 24 <sup>m</sup>	+12°		
	"	E-401	103a-E	449,767	"	"		
	"	O-402	103a-0	458,884	4 <sup>h</sup> 24 <sup>m</sup>	+12°		
	"	E-402	103a-E	449,767	"	"		
Oct 29/30	No Observations							
Oct. 30/31	No Observations							
Oct 31/Nov 1	Survey	O-403	103a-0	458,884	22 <sup>h</sup> 24 <sup>m</sup>	+36°		
	"	E-403	103a-E	449,767	"	"		
	"	O-404	103a-0	458,884	0 <sup>h</sup> 0 <sup>m</sup>	+36°		
	"	E-404	103a-E	449,767	"	"		
	Asteroid	PS-498	103a-0	449,667	4 <sup>h</sup> 37 <sup>m</sup>	+9°		
Nov. 1/2	No Observations							
Nov. 2/3	Survey	O-405	103a-0	458,884	23 <sup>h</sup> 48 <sup>m</sup>	+36°		
	"	E-405	103a-E	449,767	"	"		
	"	O-406	103a-0	458,884	0 <sup>h</sup> 56 <sup>m</sup>	+36°		
	"	E-406	103a-E	449,767	"	"		
	"	O-407	103a-0	458,884	1 <sup>h</sup> 20 <sup>m</sup>	+36°		
	"	E-407	103a-E	449,767	"	"		
	"	PS-499	103a-0	449,667	4 <sup>h</sup> 45 <sup>m</sup>	+7°		
Nov. 3/4	Survey	O-408	103a-0	458,884	0 <sup>h</sup> 26 <sup>m</sup>	+30°		
	"	E-408	103a-E	449,767	"	"		
	Test	E-408	"	449,768	"	"		
	Survey	O-409	103a-0	458,884	3 <sup>h</sup> 44 <sup>m</sup>	+36°		
	"	E-409	103a-E	449,767	"	"		

# Run No. 25 Supply Record

On hand beginning of Run: Oct. 20, 1951

## Observing Log Run No. 15

Date	Program	Plate No.	Emulsion Type	Emulsion No.	$\alpha$	$\delta$	Remarks	Grade
Nov. 3/4	Survey	O-410	103a-o	458,884	4 <sup>h</sup> 24 <sup>m</sup>	+6°		"
"	"	E-410	103a-E	449,767	"	"		"
"	"	O-411	103a-o	458,884	6 <sup>h</sup> 04 <sup>m</sup>	+30°		"
"	"	E-411	103a-E	449,767	"	"		"
"	"	O-412	103a-o	458,884	6 <sup>h</sup> 56 <sup>m</sup>	-24°		"
"	"	E-412	103a-E	449,767	"	"		"
Nov. 4/5	"	O-413	103a-o	458,884	1 <sup>h</sup> 44 <sup>m</sup>	+30°		"
"	"	E-413	103a-E	449,767	"	"		"
"	Test	E-413	"	449,768	"	"		"
"	Survey	O-414	103a-o	458,884	4 <sup>h</sup> 12 <sup>m</sup>	+36°		"
"	"	E-414	103a-E	449,767	"	"		"
"	"	O-415	103a-o	458,884	5 <sup>h</sup> 36 <sup>m</sup>	+12°		"
"	"	E-415	103a-E	449,767	"	"		"
Nov. 5/6	—	PS-500	103a-o	449,667	0 <sup>h</sup> 27 <sup>m</sup>	+30°		"
"	—	PS-501	"	"	4 <sup>h</sup> 49 <sup>m</sup>	+4°		"
Nov. 6/7	No Observations							
Nov. 7/8	Survey	O-416	103a-o	458,884	5 <sup>h</sup> 38 <sup>m</sup>	+24°		"
"	"	E-416	103a-E	449,767	"	"		"
"	"	O-417	103a-o	458,884	6 <sup>h</sup> 48 <sup>m</sup>	+18°		"
"	"	E-417	103a-E	449,767	"	"		"
"	"	O-418	103a-o	458,884	8 <sup>h</sup> 14 <sup>m</sup>	+30°		"
"	"	E-418	103a-E	449,767	"	"		"
Nov. 8/9	"	O-419	103a-o	458,884	6 <sup>h</sup> 30 <sup>m</sup>	-24°		"
"	"	E-419	103a-E	449,767	"	"		"
"	"	O-420	103a-o	458,884	7 <sup>h</sup> 48 <sup>m</sup>	-24°		"
"	"	E-420	103a-E	449,767	"	"		"
51					plates exposed			
Type:				458,884	21			
				449,767	21			
				449,768	2			
				449,667	7			
					51			

Run No. 25.

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# Observing Schedule

Rum No. 26.

Date	Start Work	Stop Work	No. of Plates	No. of Survey Air	Observer	Remarks	Sky	Seeing
Nov. 16/17	E: 6:24	M: 6:56	0	0	Ha	S.E. Wind	clear clouds	< 1
17/18	6:24	7:52	0	0	—	" "	"	< 1
18/19	6:23	8:50	0	0	—	" "	Clouds	1-2
19/20	6:23	9:49	0	0	Ha	Strong "	Heavy Overcast	
20/21	6:22	10:48	0	0	"	S.W. Wind, fog, Rain	"	"
21/22	6:22	11:46	0	0	"	S.W. Wind, fog, Mist, heavy overcast		
22/23	6:21	0:45	0	0	"	" " heavy overcast, snow		
23/24	6:21	1:45	0	0	"	W. Wind, Clouds, Snow flurries		
24/25	6:20	2:48	1	0	"	" "	clear	< 1 Soft
25/26	6:20	3:55	7	0	"	N.W. Wind	clear	< 1-1 Soft
26/27	6:20	5:05	5	2	Wi	calm	clear until 10:30 A.M.	3-4
27/28	6:20	5:11	17	8	"	calm	Clear	2-4
28/29	6:20	5:12	16	8	"	calm	Clear	2-4
29/30	6:20	5:13	8	4	"	South Wind	Clear till 1 A.M.	1-3
Nov 30/Dec 1	6:20	5:14	11	5	"	NW wind	clear	1-3
Dec 1/2	M.S. 7:33	5:15	0	0	"		Storm	
2/3	8:47	5:16	0	0	<del>Ha</del> Wi	fog		< 1
3/4	10:00	5:17	0	6	Ha	Heavy clouds, Trace of Rain		
4/5	11:07	5:18	0	0	"	Storm - Very high S.W. Wind, Rain		
5/6	0:12	5:19	0	0	"	Clear - Seeing < 1, Extremely Soft		
6/7	1:14	5:20	0	0	"	Heavy Overcast, Light Snow, E. Wind		
21			65	27				

# Observing Log

Run No. 26

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Date:	Program	Plate No.	Emulsion Type	Emulsion No.	$\alpha$	$\delta$	Remarks	Grade
Nov. 16/17	Survey	No	Observations					
" 17/18	"	"	"	"				
" 18/19	"	"	"	"				
" 19/20	"	"	"	"				
" 20/21	"	"	"	"				
" 21/22	"	"	"	"				
" 22/23	"	"	"	"				
" 23/24	"	"	"	"				
" 24/25	—	PS-502	103a-0	449,667	3 <sup>h</sup> 19 <sup>m</sup>	-37°		
"	Survey	No	Observations					
Nov. 25/26	Test	F-1	103a-0	449,667	23 <sup>h</sup> 15 <sup>m</sup>	+18°	PH-4 Direct	
"	"	F-2	"	"	23 <sup>h</sup> 31 <sup>m</sup>	+17°	PH-1 "	
"	Special	PS-503	"	458,884	0 <sup>h</sup> 40 <sup>m</sup>	+41°		
"	"	PS-504	"	449,667	1 <sup>h</sup> 36 <sup>m</sup>	0°		
"	"	PS-505	103a-E	449,767	3 <sup>h</sup> 19 <sup>m</sup>	-37°		
"	"	PS-506	"	"	5 <sup>h</sup> 24 <sup>m</sup>	-46°		
"	"	PS-507	"	"	8 <sup>h</sup> 27 <sup>m</sup> 30 <sup>s</sup>	-42°		
Nov 26/27	Survey	O-421	103a-0	458,884	23 <sup>h</sup> 36 <sup>m</sup>	-6°		
"	"	E-421	103a-E	449,767	"	"		
"	"	O-422	103a-0	458,884	1 <sup>h</sup> 44 <sup>m</sup>	-24°		
"	"	E-422	103a-E	449,767	"	"		
"	"	PS-508	103a-E	449,767	3 <sup>h</sup> 2 <sup>m</sup>	-24°	Survey plate caught by clouding error	
Nov 27/28	Survey	O-423	103a-0	458,884	23 <sup>h</sup> 50 <sup>m</sup>	+24°		
"	"	E-423	103a-E	449,767	"	"		
"	"	O-424	103a-0	458,884	1 <sup>h</sup> 18 <sup>m</sup>	+24°		
"	"	E-424	103a-E	449,767	"	"		
"	"	O-425	103a-0	458,884	2 <sup>h</sup> 48 <sup>m</sup>	+18°		
"	"	E-425	103a-E	449,767	"	"		
"	"	O-426	103a-0	458,884	4 <sup>h</sup> 0 <sup>m</sup>	-6°		
"	"	E-426	103a-E	449,767	"	"		
"	"	O-427	103a-0	458,884	5 <sup>h</sup> 36 <sup>m</sup>	+18°		
"	"	E-427	103a-E	449,767	"	"		
"	"	O-428	103a-0	458,884	6 <sup>h</sup> 48 <sup>m</sup>	+12°		
"	"	E-428	103a-E	449,767	"	"		
"	"	O-429	103a-0	458,884	8 <sup>h</sup> 0 <sup>m</sup>	0°		
"	"	E-429	103a-E	449,767	"	"		
"	"	O-430	103a-0	458,884	9 <sup>h</sup> 12 <sup>m</sup>	0°		
"	"	E-430	103a-E	449,767	"	"		

# Observing Log

Date:	Program	Plate No.	Emulsion Type	Emulsion No.	$\alpha$	$\delta$	Remarks	Grade
Nov. 27/28	Hubble	PS-509	103a-0	458,884	M-81	4 <sup>h</sup> 51 <sup>m</sup> , +19°17'		
Nov. 28/29	Survey	O-431	103a-0	458,884	23 <sup>h</sup> 36 <sup>m</sup>	0°		
		E-431	103a-E	449,767	"	"		
		O-432	103a-0	458,884	1 <sup>h</sup> 12 <sup>m</sup>	+18°		
		E-432	103a-E	449,767	"	"		
		O-433	103a-0	458,884	2 <sup>h</sup> 48 <sup>m</sup>	+36°		
		E-433	103a-E	449,767	"	"		
		O-434	103a-0	458,884	4 <sup>h</sup> 24 <sup>m</sup>	+18°		
		E-434	103a-E	449,767	"	"		
		O-435	103a-0	458,884	5 <sup>h</sup> 36 <sup>m</sup>	0°		
		E-435	103a-E	449,767	"	"		
		O-436	103a-0	458,884	6 <sup>h</sup> 48 <sup>m</sup>	-12°		
		E-436	103a-E	449,767	"	"		
		O-437	103a-0	458,884	8 <sup>h</sup> 40 <sup>m</sup>	+24°		
		E-437	103a-E	449,767	"	"		
		O-438	103a-0	458,884	8 <sup>h</sup> 48 <sup>m</sup>	+12°		
		E-438	103a-E	449,767	"	"		
Nov. 29/30	Survey	O-439	103a-0	458,884	1 <sup>h</sup> 12 <sup>m</sup>	-12°		
		E-439	103a-E	449,767	"	"		
		O-440	103a-0	458,884	2 <sup>h</sup> 24 <sup>m</sup>	-18°		
		E-440	103a-E	449,767	"	"		
		O-441	103a-0	458,884	3 <sup>h</sup> 28 <sup>m</sup>	+24°		
		E-441	103a-E	449,767	"	"		
		O-442	103a-0	458,884	4 <sup>h</sup> 46 <sup>m</sup>	+24°		
		E-442	103a-E	449,767	"	"		
Nov 30/Dec 1.	Survey	1	103a-E	449,767	broke in plate holder			
		O-443	103a-0	458,884	2 <sup>h</sup> 24 <sup>m</sup>	+18°		
		E-443	103a-E	449,767	"	"		
		O-444	103a-0	458,884	3 <sup>h</sup> 36 <sup>m</sup>	+18°		
		E-444	103a-E	449,767	"	"		
		O-445	103a-0	458,884	6 <sup>h</sup> 24 <sup>m</sup>	+12°		
		E-445	103a-E	449,767	"	"		
		O-446	103a-0	458,884	7 <sup>h</sup> 36 <sup>m</sup>	+18°		
		E-447	103a-E	449,767	"	"		
		O-447	103a-0	458,884	9 <sup>h</sup> 58 <sup>m</sup>	+30°		
		E-447	103a-E	449,767	"	"		
	Hubble	PS-510	103a-0	458,884	M-81			

# Observing Log

Date:	Program	Plate No.	Emulsion Type	Emulsion No.	$\alpha$	$\delta$	Remarks	Grade
Dec. 1/2		No	Observations					
Dec 2/3		No	Observations					
" 3/4		"	"					
" 4/5		"	"					
" 5/6		"	"					
" 6/7		"	"					



# Run No. 26

## Supply Record

On hand beginning of Run: Nov. 16, 1951					
D-19	Naccotix Conc.	Naccotix	Acetic Acid	Distilled Water	
48 gal	32 gal	5 gal	9 1/2 gal	6 gal	
Plates:	200"	48"	Open	box	Total
420,649	—	4	2	—	18
423,887	—	5	2	—	22
449,667	74	5	—	—	316 Reaccounted ✓
449,767	6	3	3	—	39
449,768	26	—	2	—	106
458,884	42	2	3	—	179

Nov. 24 - 1 gal. D-19 To 18" Dome

Nov. 25 - " " " " "

Nov. 26 6 boxes 449,767 from 200"  
6 boxes 458,884

Nov. 30 6 boxes 458,884 from 200"  
6 boxes 449,768

Dec. 1 4 gal D-19 to 200"

ON HAND End of Run Dec. 6/7-1951

D-19	Naccotix Conc.	Naccotix	Acid	Dist Water	
23	28	3	4	6	
	200"	48"	open	box	TOTAL
420,649	—	4	2	—	18 ✓
423,887	—	5	2	—	22 ✓
449,667	74	4	—	—	312 1 unaccounted
449,767	—	—	1	1	2 1 over
449,768	20	6	2	—	106 ✓
458,884	30	6	2	1	147 ✓

# Plate Log

## Run No. 26

Date	Emulsion Type	Emulsion No	Total	Break	Good	Remarks
Nov. 24	103a-0	449,667	2	0	2	
" 25	"	"	2	0	2	
" "	"	458,884	1	0	1	
" "	103a-E	449,767	3	0	3	
Nov. 26	"	"	8	0	8	
"	103a-0	458,884	6	1	5	Broken in box
Nov. 27	"	"	8	0	8	
"	103a-E	449,767	3	0	3	
Nov. 28	"	"	10	2	8	Broken in box
"	103a-0	458,884	8	0	8	
Nov. 29	"	"	8	0	8	
"	103a-E	449,767	11	4	7	2 broken in box
Nov 30	"	"	4	0	4	
"	103a-0	458,884	2	0	2	
			76	7	69	
		449,667	4	0	4	
		458,884	33	1	32	
		449,767	39	6	33	
			76	7	69	

# Observing Schedule

Run No. 27

Date	Start Work	Stop Work	No. of Plates	No. of Surveys	Observers	Remarks	Sky	Doing
Dec. 17/18	E: 6:24	Mr: 8:44	2	0	Ha	S.E. Wind, thin clouds, wet		<1-1
18/19	6:24	9:41	0	0	"	High W. Wind - heavy overcast - Rain		
19/20	6:25	10:39	0	0	"	Strong W. Wind - Snow - Sleet - by 9:40	Partially clear	
20/21	6:25	11:37	2	0	Ha - <del>Ha</del>	Clear - S.W. Breeze	Wet	1-41
21/22	6:26	0:37	8	4	"		clear	2
22/23	6:26	1:39	2	0	Ha	Moderate N.W. Wind - Milky		1-41
23/24	6:27	2:46	0	0	"	Heavy Overcast		
24/25	6:27	3:57	—	—	Closed			
25/26	6:28	5:10	—	—	"			
26/27	6:29	D: 5:31	13	6	Wi	Clear <sup>light S.W. Wind</sup>	Clear	1-3
27/28	6:29	5:32	0	0	"	Overcast		
28/29	6:30	5:32	0	0	"	Storm		
29/30	6:31	5:33	0	0	"		"	
30/31	Ms: 7:45	5:33	0	0	"		"	
1951 1952 Dec 31/1	8:57	5:34	0	0	"		"	
1/2	10:04	5:34	3	1	"	Some clouds S.E.	<sup>Temp = 18°F</sup> Wind	<1-2
2/3	11:07	5:35	0	0	"		Clear	<1
3/4	12:08	5:35	6	2	"		Clear	2-4
4/5	1:07	5:35	3	0	"	Thin clouds		<1
5/6	2:07	5:35	0	0	"		Clouds	
6/7	3:06	5:35	0	0	—		Storm	
			39	13				

# Observing Log

Run No. 24

Date	Program	Plate No.	Emulsion Type	Emulsion No.	$\alpha$	$\delta$	Remarks	Grade
Dec. 17/18	Test	F-1	103a-o	458,884	1 <sup>h</sup> 36 <sup>m</sup>	+14°	PH-4	
"	"	F-2	103a-E	449,767	"	"	PH-1 + #39	
Dec. 18/19	—	No Observations						
" 19/20	—	"	"	"	"	"		
Dec. 20/21	(Baade)	PS-511	103a-E	449,768	4 <sup>h</sup> 40 <sup>m</sup>	-18°		
"	"	PS-512	"	"	5 <sup>h</sup> 30 <sup>m</sup>	-46°		
Dec. 21/22	Survey	O-448	103a-o	458,884	1 <sup>h</sup> 24 <sup>m</sup>	+36°		
"	"	E-448	103a-E	449,768	"	"		
"	"	O-449	103a-o	458,884	2 <sup>h</sup> 30 <sup>m</sup>	+42°		
"	"	E-449	103a-E	449,768	"	"		
"	"	O-450	103a-o	458,884	3 <sup>h</sup> 28 <sup>m</sup>	+30°		
"	"	E-450	103a-E	449,768	"	"		
"	"	O-451	103a-o	458,884	4 <sup>h</sup> 48 <sup>m</sup>	+18°		
"	"	E-451	103a-E	449,768	"	"		
Dec. 22/23	Eistman	PS-513	103a-o	458,884	5 <sup>h</sup> 32 <sup>m</sup> 32 <sup>s</sup>	-5° 25' 08"		
"	(Baade)	PS-514	103a-E	449,768	7 <sup>h</sup> 5 <sup>m</sup>	-20°		
Dec. 23/24	—	No Observations						
Holiday Vacation								
Dec. 26/27	Survey	O-452	103a-o	458,884	0 <sup>h</sup> 52 <sup>m</sup>	+24°		
"	"	E-452	103a-E	449,768	"	"		
"	"	O-453	103a-o	458,884	2 <sup>h</sup> 36 <sup>m</sup>	+80°		
"	"	E-453	103a-E	449,768	"	"		
"	"	O-453'	103a-o	458,884	"	"		
"	"	O-454	103a-o	458,884	5 <sup>h</sup> 12 <sup>m</sup>	+24°		
"	"	E-454	103a-E	449,768	"	"		
"	"	O-455	103a-o	458,884	6 <sup>h</sup> 48 <sup>m</sup>	0°		
"	"	E-455	103a-E	449,768	"	"		
"	"	O-456	103a-o	458,884	8 <sup>h</sup> 24 <sup>m</sup>	+12°		
"	"	E-456	103a-E	449,768	"	"		
"	"	O-457	103a-o	458,884	9 <sup>h</sup> 58 <sup>m</sup>	+24°		
"	"	E-457	103a-E	449,768	"	"		
Dec. 27/28	No Observations							
Dec. 28/29	"	"	"	"	"	"	"	
Dec. 29/30	"	"	"	"	"	"	"	
Dec. 30/31	"	"	"	"	"	"	"	
Dec. 31/Jan 1	"	"	"	"	"	"	"	



# Observing Log

Rvn. No. 27.

Date	Program	Plate No.	Emulsion Type	Emulsion No.	$\alpha$	$\delta$	Remarks	Grade
Jan 1/2, 1952	Survey	O-458	103a-0	458,884	8 <sup>h</sup> 40 <sup>m</sup>	+30°	Telescope cable broke - repaired	
"	"	E-458	103a-E	449,768	"	"		
"	Hubble	PS-515	103a-0	458,884	9 <sup>h</sup> 52 <sup>m</sup>	+69°17'	M-81	
Jan 2/3			No	Observations				
Jan 3/4	Survey	O-459	103a-0	458,884	9 <sup>h</sup> 46 <sup>m</sup>	+30°		
"	"	E-459	103a-E	449,768	"	"		
"	"	O-460	103a-0	458,884	10 <sup>h</sup> 24 <sup>m</sup>	+24°		
"	"	E-460	103a-E	449,768	"	"		
	Eastman	PS-516	103a-0	458,884	3 <sup>h</sup> 44 <sup>m</sup>	+24°5'	P1 cluster	
	Hubble	PS-517	103a-0	458,884	9 <sup>h</sup> 52 <sup>m</sup>	+69°17'	M-81	
Jan 4/5	Banda PS-518	PS-518	103a-E	449,768	8 <sup>h</sup> 35 <sup>m</sup>	-42°	Radio Source	
		G-4	103a-0	458,884	10 <sup>h</sup> 10 <sup>m</sup>	+66°	Trail Grid	
		T-1	103a-0	458,884	10 <sup>h</sup> 30 <sup>m</sup>	+66°	Test field: position	
Jan 5/6			No	Observations				
Jan 6/7			No	Observations				

# Supply Record

Run No. 27

On hand beginning of Run: Dec. 17, 1951

D-19	Naccifix conc.	Naccifix	Acetic acid	Distilled water	
835.2	58	11	4	6	
Plater:	200"	48"	Open	box	Total
420,649	—	4	2	—	18
423,887	—	5	2	—	22
449,667	74	4	—	—	312
449,767	—	—	1	1	2
449,768	20	6	2	—	106
458,884	30	6	2	1	147

\* 4 gal. taken directly to 200"

Jan 2 8 boxes 449, 768 from 200" leaves 12  
8 boxes 458, 884 from 200" leaves 22

1 gal D-19 200" use Jan 4.

On hand end of Run: Jan 7, 1952

D-19	Naccifix conc.	Naccifix	Acetic acid	Distilled water	
71	24	9	4	6	
Plater	200"	48"	Open	box	total
420,649	—	4	2	—	18 ✓
423,887	—	5	2	—	22 ✓
449,667	74	4	—	—	312 ✓
449,768	12	9	—	1	85
458,884	22	8	4	1	125

# Plate Log

## Run No. 27

Date	Emul. Type	Emul. No.	Total	Break	Good	Remarks
Dec, 20	103a-O	458,884	2	—	2	
"	103a-E	449,768	2	—	2	
" 21	"	"	5	1	4	
" "	103a-O	458,884	2	—	2	
Dec, 22	"	"	6	—	6	
"	103a-E	449,768	6	1	5	Cover off in bot
Dec 26	103a-O	458,884	5	—	5	
"	103a-E	449,768	2	—	2	
Dec 27	"	"	3	2	1	
"	103a-O	458,884	3	—	3	
Dec, 28	103a-E	449,768	4	—	4	
Jan, 2.	103a-O	458,884	4	—	4	
Jan 4	"	"	2	—	2	
		449,768	22	4	18	
		458,884	24	0	24	
			46		42	

458,884	Bax	Open	48"
	1	4	8
449,768	1	0	9
423,887		2	5
420,649		2	4
449,667			4

Naccodix Conc. 24

Nacciödx 9

0-1.9. 64+7



# Observing Schedule

Run No. 28

	Date	Start Work	Stop Work	No. of Plates	No. of Survey Pairs	Observers	Remarks	Sky	Seeing
Wed. 16	Jan 16/17	E: 6:45	Mr. 9:29	0	Ha		Storm		
	17/18	6:45	10:27	0	—		"		
	18/19	6:45	11:27	0	—		"		
	19/20	6:45	0:30	3	Ha	0	Fog - Variable		<1-2
	20/21	6:45	1:37	0	"	0	Fog - heavy Mist		
	21/22	6:46	2:42	2	"	0	N. Wind - Clouds		<1-2
	22/23	6:46	3:58	1	"	0	Overcast - Clouds		2-3
	23/24	6:47	5:05	6	"	2	Variable Clouds		1-3
	24/25	6:47	0:57:34	0	"	0	Strong S.W. Wind, Clouds, overcast		
Fri 25	25/26	6:48	5:33	0	<del>Ha</del>	0		Clouds	<1
	26/27	6:48	5:33	0	<del>Ha</del>	0	Very Strong N. Wind		<1
	27/28	6:49	5:32	0	Ha	0	N. Wind	Clear	<1 soft
	28/29	Ms: 7:44	5:32	0	"	0	S.E. Wind - Clouds - overcast		1-2+
	29/30	8:53	5:31	7	"	3	overcast - Clear by Midnight		2-2+
	30/31	10:00	5:31	8	"	3		Clear	1-2+
	31/1	11:05	5:30	8	"	4		Clear	2-4
	1/2	0:09	5:30	0	Wi	0	NW wind	"	<1
	2/3	1:11	5:30	0	"	0	NW wind	"	<1
Mon. 4th	3/4	2:13	5:30	1	"	0	Strong NW wind	thin clouds	<1
	19			36		12			

# Observing Log

Run No. 28

Date	Program	Plate No.	Emul. Type	Emul. No.	d	δ	Remarks	Grade
Jan. 16/19	Survey	No	Observations					
" 17/18	"	"	"	"				
" 18/19	"	"	"	"				
" 19/20		F-1	103a-E	449,768			PH-1 + #91	
"		F-2	103a-O	458,884			PH-4, Direct	
"		F-3	"	"			"	"
Jan. 20/21		No	Observations					
" 21/22		F-4	103a-O	449,768			PH-2 Direct	
"		F-5	"	449,667			PH-4	"
Jan. 22/23		F-6	"	"			"	"
" 23/24		F-7	"	"			"	"
"	Survey	O-461	103a-O	458,884	9 <sup>h</sup> 48 <sup>m</sup>	+36°	Possible Clouds	
"	"	E-461	103a-E	449,768	"	"		
"	"	O-462	103a-O	458,884	12 <sup>h</sup> 0 <sup>m</sup>	+12°	Clouds - Exp. Stopped at 50 MIN. on E-462	
"	"	E-462	103a-E	449,768	"	"		
"	Hubble	PS-519	103a-O	449,667	9 <sup>h</sup> 51 <sup>m</sup>	+69° (M-81)		
Jan. 24/25		No	Observations					
" 25/26		"	"	"				
" 26/27		"	"	"				
" 27/28		"	"	"				
" 28/29		"	"	"				
" 29/30	Hubble	PS-520	103a-O	449,667	9 <sup>h</sup> 51 <sup>m</sup>	+69° (M-81)		
"	Survey	O-463	103a-O	458,884	10 <sup>h</sup> 48 <sup>m</sup>	+18°		
"	"	E-463	103a-E	449,768	"	"		
"	"	O-464	103a-O	458,884	12 <sup>h</sup> 24 <sup>m</sup>	+12°		
"	"	E-464	103a-E	449,768	"	"		
"	"	O-465	103a-O	458,884	13 <sup>h</sup> 36 <sup>m</sup>	0°		
"	"	E-465	103a-E	449,768	"	"		
Jan. 30/31	Test	F-8	103a-O	449,667			PH-4 Direct	
"	S.R.5)	PS-521	"	458,884	7 <sup>h</sup> 27 <sup>m</sup> 37 <sup>s</sup>	+29° 56' 3"		
"	Survey	O-466	"	"	9 <sup>h</sup> 32 <sup>m</sup>	+30°		
"	"	E-466	103a-E	449,768	"	"		
"	"	O-467	103a-O	458,884	10 <sup>h</sup> 24 <sup>m</sup>	0°		
"	"	E-467	103a-E	449,768	"	"		
"	"	O-468	103a-O	458,884	11 <sup>h</sup> 36 <sup>m</sup>	+12°		
"	"	E-468	103a-E	449,768	"	"		

# Observing Log

Run No. 25

Date	Program	Plate No.	Emul. Type	Emul. No.	$\alpha$	$\delta$	Remarks	Grade
Jan. 1/2 Feb. Jan. 31 / Feb. 1	Survey	O-469	103a-O	458,584	8 <sup>h</sup> 48 <sup>m</sup>	0°		
	"	E-469	103a-E	449,768	"	"		
	"	O-470	103a-O	458,884	10 <sup>h</sup> 0 <sup>m</sup>	0°		
	"	E-470	103a-E	449,768	"	"		
	"	O-471	103a-O	458,884	11 <sup>h</sup> 36 <sup>m</sup>	0°		
	"	E-471	103a-E	449,768	"	"		
	"	O-472	103a-O	458,884	12 <sup>h</sup> 48 <sup>m</sup>	0°		
	"	E-472	103a-E	449,768	"	"		
FEB. 1/2	No	Observations						
Feb 2/3	No	Observations						
Feb 3/4	Comet	PS-522	103a-O	449,667	12 <sup>h</sup> 36 <sup>m</sup>	+13°		

# Supply Record

Run No. 28 - 1952

On hand beginning of Run Jan 19/20 - 1952

D-19	Naccotix conc.	Naccotix	Acetic Acid	Distilled Water
71	24	9	4	6

Plates:-	200"	48"	open	box	Total
420,649	—	4	2	—	18
423,887	—	5	2	—	22
449,667	74	4	—	—	312
449,767	—	—	—	—	—
449,768	12	9	—	1	85
458,884	22	8	4	1	125

Jan. 23 -

2 gal. D-19 to 18" Dome

In hand end of run, February 4, 1952

D-19	Naccotix conc.	Naccotix	Acetic Acid	Distilled Water
59 1/2 gal	2 3/4	8	4	6

Plates	200"	48"	Open	box	total
420,649	—	4	2		78
423,887	—	5	2		22
449,667	74	2	—	D	304 ✓
449,768	12	5	—	3	71 ?
458,884	22	4	—	3	107 ?



# Plate Log

Run No. 28 - 1952

Date	Emul. Type	Emul. No.	Total	Break	Good	Remarks
Jan. 19/20	107a-0	458,884	2	—	2	2 in yellow dot used for test
" 21/22	"	449,667	1	—	1	
" 22	"	458,884	2	—	2	
" "	103a-E	449,768	4	—	4	
" "	103a-0	449,667	1	—	1	
Jan. 23	"	"	3	1	2	broken in set
" 29/30	"	"	1	—	1	
" "	"	458,884	3	—	3	
" "	103a-E	449,768	1	—	1	
Jan. 30/31	103a-0	458,884	5	—	5	
" "	103a-E	449,768	6	1	5	
" "	103a-0	449,667	1	—	1	
Jan 31/Feb 1	"	458,884	5	2	3	1 broke during unloading 1 - not cut square
" "	103a-E	449,768	3	—	3	
Feb 1	"	"	3	—	3	
" "	103a-0	449,667	1	—	1	
			42			
		449,667	8	1	7	
		458,884	19	2	15	
		449,768	19	1	16	
			42	4	38	

# Observing Schedule

Rum No. 29

Date	Start	Stop	No. of Plates	No. of Survey Pair	Observer	Remarks	Sky	Seeing
Feb 14/15	E: 7:06	Mr: 9:21	—		Ha			
15/16	7:07	10:23	5	1	"	clear, Clouded by 10:00 P.M.	1-2	
16/17	7:08	11:27	1	0	"	clouds, fog, West Wind	< 1	
17/18	7:09	0:34	0	0	"		Storm	—
18/19	7:10	1:42	0	0	"	W. Wind, Clouds, fog	< 1	
19/20	7:11	2:49	1	0	"	W. Wind, Clear, Clouded by 12:00 M.	1-2	
20/21	7:11	3:49	5	1	"	N.W. Wind, Clear, Clouded by 12:30	1-2	
21/22	7:12	4:42	2	0	"	N.W. Wind, Scattered Clouds, fog	< 1-1+	
22/23	7:12	0:5:14	0	0	Wi		Storm	—
23/24	7:13	6:13	0	0	"		Storm	—
24/25	7:13	5:12	2	0	"	Strong East Wind Clear	< 1	
25/26	7:14	5:11	0	0	"	Strong SE Wind	Partly Cloudy	< 1
26/27	Mr 7:37	5:10	0	0	"		Overcast	—
27/28	8:45	5:09	1	0	"	Very bright sky	Partly Cloudy	2
28/29	9:52	5:08	5	2	"	" " "	Clouds at 4:00 A.M.	2-3
Feb 29/Mar 1	10:57	5:07	0	0	"		Storm	—
Mar 1/2	12:01	5:06	0	0	"		Storm	—
2/3	1:01	5:05	4	2	"	Partly cloudy: Very dark sky	< 1-2	
3/4	1:57	5:04	0	0	"		Cloudy	< 1
4/5	2:47	5:03			"		Cloud	
20			26	6 pair				

# Observing Log

Run No. 19

Date	Program	Plate No.	Emul. Type	Emul. No.	$\alpha$	$\delta$	Remarks	Grade
Feb. 15/16	Test	F-1	103a-0	449,667			PH-2 Direct	
"	"	F-2	"	"			PH-1 "	
"	Comet	PS-523	"	"	12 <sup>h</sup> 41 <sup>m</sup> 36 <sup>s</sup>	+15° 18' 24"	Very close to moon	
"	Survey	O-473	"	458,884 449,768	7 <sup>h</sup> 12 <sup>m</sup>	+12°		
"	"	E-473	103a-E	449,768	"	"		
Feb. 16/17	Comet	PS-524	103a-E	449,768	12 <sup>h</sup> 41 <sup>m</sup> 36 <sup>s</sup>	+15° 18' 24"	clouds, Moon	
Feb. 17/18			No Observations					
Feb. 18/19		"	"	"				
Feb. 19/20	Test	Q-E-1	103a-E	485,765	S.A. 51 (New Emulsion)			
Feb. 20/21	South	PS-525	"	"	6 <sup>h</sup> 04 <sup>m</sup>	-36°		
"	M=81	PS-526	103a-0	449,667	9 <sup>h</sup> 57 <sup>m</sup> 40 <sup>s</sup>	+69° 17' 26"		
"	South	PS-527	103a-E	485,765	8 <sup>h</sup> 52 <sup>m</sup>	-36°		
"	Survey	O-474	103a-0	458,884	7 <sup>h</sup> 36 <sup>m</sup>	+6°		
"	"	E-474	103a-E	449,768	"	"		
Feb. 21/22	South	PS-528	"	485,765	11 <sup>h</sup> 40 <sup>m</sup>	-36°		
"	Test	T-1	"	"	13 <sup>h</sup> 22 <sup>m</sup>	-11°		
Feb 22/23			No Observations					
Feb 23/24			No Observations					
Feb 24/25	Polar Align	T-2	103a-E	449,768	Pole			
	Comet	PS-529	103a-0	458,884	12 <sup>h</sup> 46 <sup>m</sup>	+17° 58'		
Feb 25/26			No Observations					
Feb 26/27			No Observations					
Feb 27/28	Test	PS-530	103a-E	449,768	7 <sup>h</sup> 56 <sup>m</sup>	+72°	Polar-axis test.	
Feb 28/29	Survey	O-475	103a-0	458,885	8 <sup>h</sup> 48 <sup>m</sup>	+60°		
"	"	E-475	103a-E	449,768	"	"		
"	"	O-476	103a-0	458,885	10 <sup>h</sup> 44 <sup>m</sup>	+78°		
"	"	E-476	103a-E	449,768	"	"		
	Test	QE-1	103a-E	485,765	S.A. 57			
Feb 29/Mar 1			No Observations					
Mar 1/2			No Observations					
Mar 2/3	Survey	O-477	103a-0	458,885	12 <sup>h</sup> 28 <sup>m</sup>	+48°		
"	"	E-477	103a-E	449,768	"	"		
"	"	O-478	103a-0	458,885	13 <sup>h</sup> 36 <sup>m</sup>	+72°		
"	"	E-478	103a-E	449,768	"	"		
Mar 3/4			No Observations					
Mar 4/5								

# Supply Record

Run No. 19

On hand beginning of run: Feb. 15/16-1952

D-19	Naccodix conc.	Naccodix	Acetic Acid	Distilled water
59 1/2 Gal.	24	8	4	6

Plates:-	200"	48"	open	box	Total
420,649	—	4	2	—	18
423,887	—	5	2	—	22
449,667	74	2	—	—	304
449,768	12	5	—	3	71
458,884	22	4	—	3	107

OK

Received for test 13? 103a-E (449,765) Plates  
Feb. 19, 1952

2 boxes 449,667 from 200" dome

Feb 24, 1gal D-19 to 18"

On hand end of run: March 4, 1952

D-19	Naccodix conc.	Naccodix	Acetic Acid	Distilled water
51 gal	20	7 gal	4 gal	6 gal

Plates:	200"	48"	open	box	total
420,649	—	4	2	—	18
423,887	—	5	2	—	22
449,667	72	2	2	—	298
449,768	12	3	—	2	62
458,884	22	2	—	3	99
485,765	—	—	14 or 15	2	16 or 17



Date	Emul. Type	Emul. No.	Total	Break	Good	Remarks
Feb. 15/16	103a-D	449,667	5	2	3	Broken in box
Feb. 18	"	"	1	-	1	
Feb 19	103a-E	485,765	3	-	3	2 used for fog test 1 " " GE-1
Feb. 20	"	"	2	-	2	
"	"	449,768	1	-	1	
Feb. 21	"	485,765	2	-	2	
Feb 25	"	"	2	-	2	
Feb 27	"	449,768	3	-	3	
"	103a-D	458,885	2	-	2	
Mar. 3	"	"	2	-	2	
"	103a-E	449,768	2	-	2	
"	"	"	2	-	2	
"	103a-D	458,885	4	1	3	not square
Mar. 4	103a-E	485,765	1	-	1	
		Total				
		449,667	6	2	4	
		458,885	8	1	7	
		449,768	8		8	
		485,765	10		10	6 exposed:

# Observing Schedule

Run No. 30

	Date	Start	Stop	No. of plates	No. of Survey Pair	Southern Extension	Observer	Wind	(Clouds) Sky	Seeing
Friday	March 14/15	E: 7:30	Mr.: 9:19	0	0	0	Wi	South	Storm	-
	Mar 15/16	7:30	10:26	0	0	0	"	SW	"	-
	16/17	7:30	11:33	0	0	0	"	SW	"	-
	17/18	7:31	12:40	1	0	0	"	NW	fog <del>very</del> wet	1-2
	18/19	7:32	1:41	0	0	0	"	NW	fog - wet	-
	19/20	7:33	2:35	0	0	0	"	W	" "	-
	20/21	7:34	3:21	4	0	0	"	NW	wet some clouds	1-2
	21/22	7:35	4:00	1	0	0	"	NE strong	clear	<1
	22/23	7:36	4:34	0	0	0	"	NE strong	clear	<<1
	23/24	7:37	D: 4:36	2	0	0	"	NE	thin clouds	1 to <1
	24/25	7:38	4:35	0	0	0	Ha	N	thin clouds	<1
	25/26	7:39	4:34	8	0	0	"	N.W.	clear	<1-2-1
	26/27	7:40	4:32	0	0	0	"	S.E. Strong	overcast	2-41
	27/28	Ms: 8:37	4:30	4	1	0	"	S.E.	clear by 12:00	<1-3+
	28/29	9:43	4:29	0	0	0	"	Calm	overcast	1-2
	29/30	10:46	4:27	0	0	0	"	S.W. Strong	thin clouds	1
	30/31	11:46	4:26	0	0	0	"	N. Gusty	clear??	<1-1
	Mar 31/Apr 1	0:40	4:25	4	1	0	"	S.E.	Thin clouds Clear by 1:00	2-3+
	Apr. 1/2	1:26	4:24	4	1	0	"	N. Breeze	clear	2-4
	2/3	2:06	4:23	1	0	0	"	N.W. Gusty	"	1-1+
Friday	3/4	2:40	4:22	2	1	0	"	N.E.	"	1-2-
	21 nights			31	5					

# Observing Log

Run No. 30

Date	Program	Plate No	Emulsion Type	Emulsion No.	$\alpha$	$\delta$	Remarks	Grade
Mar 14/15		No Observations						
Mar 15/16		"	"					
Mar 16/17		"	"					
Mar 17/18	Focus	F-1	103a-E	485,765	PH-1			
			103a-E	485,765	PH-2		Ruined by clouds - not developed	
Mar 18/19		No Observations						
Mar 19/20		"	"					
Mar 20/21	Focus	F-2	PH-1	103a-0	458,884			
	"	F-3	PH-2	103a-0	408,884			
	Polar Alignment	T-3	Po/p	103a-E	449,768			
	M-81	PS-531		103a-0	458,884			
Mar 21/22	Munch	PS-532	103a-E	449,768	7 <sup>h</sup> 50 <sup>m</sup> 6 <sup>s</sup>	-26°22'40"		
Mar 22/23		No Observations						
Mar 23/24	Tests	T-4	Po/p	103a-E	449,768			
		T-5	"	103a-0	458,884			
				103a-0	458,884		not developed	
Mar 24/25		No Observations						
Mar 25/26	Focus	F-4	103a-0	449,667	PH-1	S.E.		
		F-5	"	"	"	S.W.		
		F-6	"	"	"	N.E.		
		F-7	"	"	"	N.W.		
		F-8	"	"	"	S.E.		
		F-9	"	"	"	S.W.		
		F-10	"	"	"	N.E.		
		F-11	"	"	"	N.W.		
Mar 26/27		No Observations						
" 27/28	F-12	103a-0	→	449,667	PH-1	-15°		
"	F-13	103a-E	→	485,765	"	+85°		
"	Survey <del>0-479</del>	0-479	103a-0	458,884	15 <sup>h</sup>	+90°		
"	Survey	E-479	103a-E	449,768	"	"		
Mar 28/29	Survey	No Observations						
" 29/30		"	"					
" 30/31		"	"					
Mar 31/APR 1	Survey	O-480	103a-0	458,884	15 <sup>h</sup>	+90°		
" "	"	E-480	103a-E	449,768	"	"		
" "	"	O-481	103a-0	458,884	15 <sup>h</sup> 0 <sup>m</sup>	+84°		
" "	"	E-481	103a-E	449,768	"	"		

# Observing Log

Run No. 30

Date	Program	Plate No.	Emulsion Type	Emulsion No.	$\alpha$	$\delta$	Remarks	Grade
APR. 1/2	Focus	F-14	103a-o	449,667	14 <sup>h</sup> 21 <sup>m</sup>	-15° 52'	PH-2	
"	"	F-15	"	"	14 <sup>h</sup> 53 <sup>m</sup>	+87° 25'	"	
"	Survey	O-482	"	458,884	15 <sup>h</sup>	+90°		
"	"	E-482	103a-E	449,768	"	"		
APR. 2/3	Focus	<del>F-15</del> F-16	103a-o	449,667	—	—	PH-2	
APR. 3/4	Survey	O-483	"	458,884	15 <sup>h</sup>	+90°		
" "	"	E-483	103a-E	449,768	"	"		



# Supply Record

Run No. 30

On hand beginning of run: March 14, 1952

D-19	Naccotix Conc.	Naccotix	Acetic Acid	Distilled Water	
51 gal	20	7	4	6	
Plates	200"	48"	Open	box	total
420,649	-	4	2	-	18
423,887	-	5	2	-	22
485,765	-	-	14 or 15	2	16 or 17
449,667	72	2	2	-	298
449,768	12	3	-	2	62
458,884	22	2	-	3	99

~~4 gal~~ D-19 to 200" Mar 14.  
 8 boxes 458,884 from 200" March 21  
 8 boxes 449,768 " " "  
 4 boxes 449,667 " " March 29

On hand end of run - April 4-1952

D-19	Naccotix Conc.	Naccotix	Acetic Acid	Dist. Water	
40	12	6	3 2/3	6	
Plates					
420,649	—	4	2	—	18
423,887	—	5	2	—	22
485,765	—		See Above		13 or 14
449,667	68	3	1	285	✓
449,768	4	8	5 (2 boxes)	53	✓
458,884	14	7	5 (2 boxes)	89	✓

# Plate Record (Testing)

Date	Emul Type	Emul No.	Total	Break	Good	Remarks
Mar 21	103a-E	449,768	2	-	2	
"	103a-O	458,884	2	-	2	
" 25	103a-O	449,667	9	1	8	
" 27	"	"	1	-	1	
" "	103a-E	485,765	1	-	1	
" "	103a-O	458,884	1	-	1	
" 30/31	"	"	2	-	2	
" "	103a-E	449,768	2	-	2	
April 1/2	"	"	2	1	1	
" "	103a-O	458,884	1	-	1	
" "	"	449,667	2	-	2	
" 2/3	"	"	1	-	1	
" "	"	458,884	1	-	1	
" "	103a-E	449,768	1	-	1	
			28		26	

449,768	7	1	6
458,884	7		7
449,667	13	1	12
485,765	1		1
	28		26

# Observing Schedule

Run No. 31

April 1952

	Date	Start	Stop	No. of plates	No. of shiny air	Observers	Wigt Temp Range	Wind	Sky	Seeing
April	11/12	E: 7:53	M: 8:15	0	0	Wi	-	-	Fog	-
	12/13	7:54	9:24	0	0	"	-	-	Overcast	-
	13/14	7:55	10:32	3	1	"	42°	W	Clear - <sup>thick</sup> Fog	3 to <1
	14/15	7:56	11:35	4	2	"	46°	NW later E	Fog, then clear	1-2
	15/16	7:57	12:31	4	0	"	55°-50°	SE	scattered clouds	3
	16/17	7:58	1:19	7	3	"	53°	SE	clear	2-3
	17/18	7:59	2:00	9	4	"	54°	NW	clear	1-3
	18/19	8:00	2:34	7	3	"	54°	N	clear until 1:00 - clouds	2+
	19/20	8:01	3:05	0	0	"	33°	SSW	Fog	-
	20/21	8:02	3:34	0	0	"	40°	NW	Fog	<1
	21/22	8:03	D: 3:54	9	1	"	45°	S	clear, wet	2-3+
	22/23	8:04	3:53	2	0	Ha	48°	calm	clear, wet	1-3-2-
	23/24	8:05	2:52	2	0	"	49°-48°	N. W. S. E.	clear, clouds by 11:00	2-4
	24/25	8:06	3:51	2	0	"	48°	S. E.	clear some fog	1-2-1
	25/26	M: 8:30	3:50	0	0	"	36°	S. W.	storm	
	26/27	8:32	3:49	0	0	"			fog	
	27/28	10:29	3:48	0	0	"			storm	
	28/29	11:18	3:47	0	0	"			fog - rain	
	29/30	12:01	3:46	0	0	"			fog - clouds	1-1+
	30/1	12:38	3:45	4	2	"	53°	N. W.	clear	2-1
Apr/May	20			53	16					

# Observing Log

Run No. 31

April 1952

Date	Program	Plate No	Emulsion Type	Emulsion No.	$\alpha$	$\delta$	Filter	Temp.
April 11/12		No	Observations					
April 12/13		No	Observations					
April 13/14	Comet 1951k	PS533	103a-O	449,667	5 <sup>h</sup> 43 <sup>m</sup>	+12°		
	Survey	E-484	103a-E	449,768	7 <sup>h</sup> 56 <sup>m</sup>	+36°	#41	42°
	"	O-484	103a-O	458,884	"	"	"	"
	1 Focus plate		103a-O	458,884	Ruined by fog - not developed			
April 18/15	Tests	F-1	103a-E	485,765	9 <sup>h</sup> 48 <sup>m</sup>	+12°		
		F-2	103a-E	485,765	10 <sup>h</sup> 26 <sup>m</sup>	+14°	"	"
		F-3	103a-E	449,768	10 <sup>h</sup> 26 <sup>m</sup>	+14°	"	"
	Comet 1952a	PS-536	103a-O	488,884	12 <sup>h</sup> 7 <sup>m</sup>	+25°		
April 14/15	Survey	O-485	103a-O	458,884	7 <sup>h</sup> 36 <sup>m</sup>	-12°		
		E-485	103a-E	449,768	"	"		
		O-486	103a-O	458,884	10 <sup>h</sup> 48 <sup>m</sup>	0°		
		E-486	103a-E	449,768	"	"		
April 16/17	Test.	F-4	103a-E	485,765	10 <sup>h</sup> 14 <sup>m</sup>	+14°		
	Survey	O-487	103a-O	458,884	11 <sup>h</sup> 12 <sup>m</sup>	0°		
		E-487	103a-E	449,768	"	"		
		O-488	103a-O	458,884	12 <sup>h</sup> 24 <sup>m</sup>	0°		
		E-488	103a-E	449,768	"	"		
		O-489	103a-O	458,884	14 <sup>h</sup> 0 <sup>m</sup>	0°		
		E-489	103a-E	449,768	"	"		
April 17/18	Test.	F-5	103a-E	485,765	10 <sup>h</sup> 14 <sup>m</sup>	+14°		
	Survey	O-490	103a-O	458,884	10 <sup>h</sup> 10 <sup>m</sup>	-6°		
		E-490	103a-E	449,768	"	"		
		O-491	103a-O	458,884	11 <sup>h</sup> 06 <sup>m</sup>	-12°		
		E-491	103a-E	449,768	"	"		
		O-492	103a-O	458,884	13 <sup>h</sup> 12 <sup>m</sup>	+6°		
		E-492	103a-E	449,768	"	"		
		O-493	103a-O	458,884	14 <sup>h</sup> 24 <sup>m</sup>	+6°		
		E-493	103a-E	449,768	"	"		
April 18/19	Survey	O-494	103a-O	458,884	10 <sup>h</sup> 24 <sup>m</sup>	-12°		
		E-494	103a-E	449,768	10 <sup>h</sup> 24 <sup>m</sup>	-12°		
		O-495	103a-O	458,884	13 <sup>h</sup> 36 <sup>m</sup>	+6°		
		E-495	103a-E	449,768	"	"		
		O-496	103a-O	458,884	13 <sup>h</sup> 12 <sup>m</sup>	0°		
		E-496	103a-E	449,768	13 <sup>h</sup> 12 <sup>m</sup>	0°		
	Comet 1952a	PS 537	103a-O	458,884	12 <sup>h</sup> 06 <sup>m</sup>	+24°35'		



Date	Program	Plate No.	Emulsion Type	Emulsion No.	$\alpha$	$\delta$	Filter	Temp
April 19/20			No Observations					
April 20/21			No Observations					
April 21/22	Test	F-6	103a-0	458,884	10 <sup>h</sup> 39 <sup>m</sup>	+14° 14'	PH-1	
	"	F-7	103a-0	449,667	10 <sup>h</sup> 47 <sup>m</sup>	+16° 31'	PH-3	
	Hubble	PS-538	103a-0	458,884	9 <sup>h</sup> 52 <sup>m</sup>	+69° 17'	M-81	
	Humason	PS-539	103a-0	449,667	12 <sup>h</sup> 57 <sup>m</sup>	+28° 18'	Coma Cl.	
	Survey	O-497	103a-0	458,884	14 <sup>h</sup> 48 <sup>m</sup>	+6°		
	"	E-497	103a-E	449,718	"	"		
	Wild	PS-540	103a-0	458,884	17 <sup>h</sup> 40 <sup>m</sup>	-34° 56'	Nova Field	
	"	PS-541	103a-0	449,667	17 <sup>h</sup> 54 <sup>m</sup>	-28° 58'	" "	
	"	PS-542	103a-0	449,667	18 <sup>h</sup> 06 <sup>m</sup>	-30° 54'	" "	
April 22/23	Tests	QE-1	<del>103a-E</del> 876,8	486,815	S.A.	57	#41	PH-3
	"	QO-1	103a-0	486,773	"		—	PH-1
April 23/24	"	QE-2	103a-E	486,815	"		#41	PH-3
"	Focus	F-8	103a-0	449,667			PH-2	F
April 24/25	Tests	QO-2	"	486,773	S.A.	57		PH-1
"	"	QO-3	"	"	"			"
April 25/26	—	No Observations						
" 26/27	"	"	"	"				
" 27/28	"	"	"	"				
" 28/29	"	"	"	"				
" 29/30	"	"	"	"				
April 30/May 1	Survey	O-498	103a-0	486,773	16 <sup>h</sup> 24 <sup>m</sup>	-6°		53°
	"	E-498	103a-E	486,815	"	"	#41	
	"	O-499	103a-0	486,773	17 <sup>h</sup> 36 <sup>m</sup>	0°		53°
	"	E-499	103a-E	486,815	"	"	#41	

# Supply Record

Run No. 31

April 1952

On Hand Beginning of run: April 11, 1952

D-19	Naccofix Conc.	Naccofix	Acetic Acid	Distilled Water	
40	12	6	3 2/3	6	
Plates	200"	48"	Open	box	total
420,649	-	4	2	-	18
423,887	-	5	2	-	22
485,765	-	-	13	-	13
449,667	68	3	1	-	285
449,768	4	8	5	-	53
458,884	14	7	5	-	89

April 17 4 gal D-19 to 200"

April 23 4 gal. D-19 to 200"

April 18 4 boxes 449,768 from 200"

4 boxes 458,884 " "

incorrect.

New Plates Received 4-23-52

103a-o	*486,773	239 boxes (2 in box)	=	478	Plates
103a-E	486,815	70 "	=	140	"
"	486,826	90 "	=	180	"
"	486,827	55 "	=	110	"

April 23 10 boxes 486,815 from 200"

" 10 " 486,826 " "

" 10 " 486,827 " "

" 12 " 486,773 " "

1 Plate of each emulsion To Miller

On Hand End of Run - April 30, 1952

D-19	Naccofix	Nacco Conc.	Acetic Acid	Dist. Water	
47 GAL.	5 GAL.	8 GAL.	3 1/2	6	
420,649	-	4	2	-	18
423,887	-	5	2	-	22
485,765	-	-	7	-	7 ← ?
449,667	68	1	3	-	279
449,768	-	9	-	1	37
458,884	10	7	-	-	68
486,773	229	-	-	-	454
486,815	60	1	1	-	123
486,826	80	4	-	-	168
486,827	45	1	-	-	98

incorrect.

2 boxes each to Pasadena for tests 4-30-52

Exp	Totaled	total	broken	good	
6	449,667	6	0	6	✓
15	449,768	17	1	16	1 left ✓
20	458,884	21	1	20	✓
4	485,765	5	1	4	✓
4	486,815	5	1	4	✓
5	486,773	6	1	5	✓
54					

April 10 1927  
" " "  
" " "  
" " "  
" " "

April 10 1927 - April 30 1927  
Harcourt, Harcourt & Co., Boston

18





# Observing Schedule

Run No. 32

May 1952

Date	Start	Stop	No. of Plates	No. of Survey Pair	Observer	Night Temp Range	Wind	Sky	Seeing
May 12/13	E 8:23	Mr. 10:26	3	0	Wi	58-64	NW	Thin Clouds	2+
13/14	8:24	11:17	3	0	"	60°	W	Clear	2-3
14/15	8:25	12:00	<del>3</del>	0	"			thin Clouds	<1 <sup>3</sup> Wet
15/16	8:26	0:36	0	0	Hill			Clear	<1 Wet
16/17	8:27	1:08	0	0	Ha	47°	N.W.	Clouds	Wet 2-1-1
17/18	8:28	1:37	0	0	"		Slight N.W.	Clear	Soft <1-1
18/19	8:29	2:05	3	0	"		Clouds Clear by 12:00	→ wet	1-2-
19/20	8:30	2:34	0	0	Ha		N.W.	Cloudy	2
20/21	8:31	3:05	0	0	"		W. Very high	thin Clouds	<1
21/22	8:32	D. 3:21	2	0	"	50°	N.W.	Clear, Wet	1-2-2
22/23	8:33	3:20	4	0	"		Breeze N.W.	Clear	Variable 3-1-41
23/24	8:34	3:20	8	4	"	57°	N.W. Breeze	"	2-2-
24/25	8:35	3:20	7	3	"	58°	"	"	1-2-2-
25/26	M. 9:11	3:19	6	3	"	58°	N.W.	"	2-<1 Soft
26/27	9:56	3:18	6	3	"	62	"	"	<2-3
27/28	10:36	3:17	6	3	Wi	60	Slight N.W.	"	2-4
28/29	11:09	3:16	0	0	"	60	SW	clouds	-
29/30	11:37	3:15	1	0	"	55	S	clear	2
30/31	0:04	3:15	-	-	-				
May/June	31/1	0:28	-	-	-				
	1/2	0:54	-	-	-				
48 nights			52	16					

DATER FILTER CHANGED

# Observing Log

Run No. 32

May 1952

Date	Program	Plate No.	Emulsion Type	Emulsion No.	$\alpha$	$\delta$	Filter	Temp.	
May 12/13	Tests	F-1	103a-E	485,765	12 <sup>h</sup> 5 <sup>m</sup>	+13° 16'	Focus	64°	PH-1
"	"	F-2	103a-E	485,765	12 <sup>h</sup> 24 <sup>m</sup>	+16° 8'	Focus	63°	"
"	"	T-1	103a-E	449,768	Polar	Alignment	41	63°	"
May 13/14	Tests	F-3	103a-E	485,765	11 <sup>h</sup> 39 <sup>m</sup>	+12° 34'	Focus	65°	PH-2
"	"	T-2	103a-E	486,815	Polar	Alignment	41	65°	"
"	"	PS-543	103a-E	486,815	12 <sup>h</sup> 29 <sup>m</sup>	+12° 23'	41	65°	Beade
May 14/15	"	PS-544	"	"	"	+33°			
"	"	PS-545	103a-E	449,667	14 <sup>h</sup> 05 <sup>m</sup>	+54°			
"	"	PS-546	"	"	14 <sup>h</sup> 25 <sup>m</sup>	+51°			
May 14/17	No Observations								
May 17/18	"	"	"	"	"	"	"	"	"
May 18/19	Earthquake AT 12:50	PS-547	103a-E	486,773	14 <sup>h</sup> 0 <sup>m</sup>	+59° 30'	-	63	PH-2
"	"	PS-548	"	"	13 <sup>h</sup> 40 <sup>m</sup>	+57°	-	62	"
"	"	PS-549	"	449,667	13 <sup>h</sup> 40 <sup>m</sup>	+49° 30'	-	62	"
May 19/20	No Observations								
" 20/21	"	"	"	"	"	"	"	"	"
" 21/22	Tests	T-3	103a-E	449,768	Polar Alignment	*41	5	PH-1	
"	"	QE-1	"	486,826	S.A. 57	*41		PH-1	
May 22/23	"	T-4	"	449,768	Polar Alignment			"	
"	"	T-5	"	485,765	"			"	
"	"	T-6	"	"	"			"	
"	"	T-7	"	"	"			"	
May 23/24	Survey	O-500	103a-E	486,773	13 <sup>h</sup> 36 <sup>m</sup>	-6°		65	PH-2
"	"	E-500	103a-E	486,826	"	"	41	64	PH-1
"	"	O-501	103a-E	486,773	15 <sup>h</sup> 12 <sup>m</sup>	0°		62	
"	"	E-501	103a-E	486,826	"	"	41	62	
"	"	O-502	103a-E	486,773	16 <sup>h</sup> 24 <sup>m</sup>	-12°		61	
"	"	E-502	103a-E	486,826	"	"	41	61	
"	"	O-503	103a-E	486,773	18 <sup>h</sup> 0 <sup>m</sup>	-12°		61	
"	"	E-503	103a-E	486,826	"	"	41	61	
May 24/25	PS-550	"	103a-E	486,889	M. 101 Region				
"	Survey	O-504	103a-E	486,773	15 <sup>h</sup> 12 <sup>m</sup>	-6°			
"	"	E-504	103a-E	486,826	"	"	41		
"	"	O-505	103a-E	486,773	17 <sup>h</sup> 12 <sup>m</sup>	+12°			
"	"	E-505	103a-E	486,826	"	"	41		
"	"	O-506	103a-E	486,773	19 <sup>h</sup> 12 <sup>m</sup>	+12°			
"	"	E-506	103a-E	486,826	"	"	41		

# Observing Log

Run 32  
May 1952

Date	Program	Plate No.	Emul. Type	Emul. No.	$\alpha$	$\delta$	Filter	Temp.
May 25/26	Survey	0-507	103a-O	486,773	19 <sup>h</sup> 44 <sup>m</sup>	+48°		
		E-507	103a-E	486,826	"	"	41	
		0-508	103a-O	486,773	16 <sup>h</sup> 0 <sup>m</sup>	+42°		
		E-508	103a-E	486,826	"	"	"	
		0-509	103a-O	486,773	17 <sup>h</sup> 34 <sup>m</sup>	+48°		
		E-509	103a-E	486,826	"	"	"	
May 26/27	Survey	0-510	103a-O	486,773	15 <sup>h</sup> 12 <sup>m</sup>	+54°		
		E-510	103a-E	486,826	"	"	"	
		0-511	103a-O	486,773	16 <sup>h</sup> 20 <sup>m</sup>	+36°		
		E-511	103a-E	486,826	"	"	"	
		0-512	103a-O	486,773	18 <sup>h</sup> 20 <sup>m</sup>	+60°		
		E-512	103a-E	486,826	"	"	"	
May 27/28	Survey	0-513	103a-O	486,773	15 <sup>h</sup> 12 <sup>m</sup>	-12°		67°
	"	E-513	103a-E	486,826	"	"	"	
	"	0-514	103a-O	486,773	17 <sup>h</sup> 12 <sup>m</sup>	-18°		
	"	E-514	103a-E	486,826	"	"	"	
	"	0-515	103a-O	486,773	18 <sup>h</sup> 42 <sup>m</sup>	+48°		65°
	"	E-515	103a-E	486,826	"	"	"	
May 28/29	No Observations.							
May 29/30	Test	Q-W	103a-E	486,826	S.A.G.I		"	55°



# Plate Testing Record

Run No. 32

May 1952.

	Date	Emulsion Type	Emulsion No.	Total	Break	Good	Remarks
	May 12	103a-E	485,765	2	-	2	
	May 13	103a-E	485,765	1	-	1	
	"	"	486,815	3	-	3	
	May 14	103a-O	449,667	2	-	2	
	" 18	"	"	1	-	1	
Hiro		"	486,773	2	-	2	
		103a-E	449,768	2	-	2	
	May 21	103a-O	458,884	1	-	1	one of these broken in bot
	"	103a-E	486,826	3	2	1	
	" 22	"	485,765	3	-	3	
	"	"	486,826	1	-	1	
	"	103a-O	486,773	2	-	2	
	May 23	103a-E	486,826	4	-	4	
	"	103a-O	486,773	2	-	2	
	May 24	"	"	4	1	3	broken in bot
	"	103a-E	486,826	2	-	2	
	May 25	"	"	4	-	4	
	"	103a-O	486,773	4	-	4	
	May 26	"	"	2?	-	2?	
	"	103a-E	486,826	2?	-	2?	
	May 27	"	"	4	-	4	
	"	103a-O	486,773	4	-	4	
			485,765	6		6	✓
			486,815	3		3	✓
			449,667	3		3	✓
			486,773	20?	1	19	✓
			449,768	2		2	✓
			458,884	1		1	✓
			486,826	20?	2	18	✓



# Observing Schedule

Run No. 33

June, 1952

Date	Start	Stop	No. of plates	No. of Survey Pair	Observers	Night Temp Range	Wind	Sky	Seeing
June 11/12	E: 8:50	Mr. 10:36	0	0	Ha	47°	N.W.	Muddy	<1, Soft
12/13	"	11:10	3	0	"	54°	N.W.	clear	21-3-2
13/14	"	11:40	3	1	"	54°-57°	W.	"	2
14/15	"	12:08	3	1	"	50°-51°	N.W.	"	1-2
15/16	"	0:37	0	0	"		"	"	1, soft
16/17	"	1:07	4	2	"	60	W.	"	2
17/18	"	1:40	3	1	"	60°-62°	W.	"	2-41
18/19	"	2:16	2	1	"	61°-66°	N.W.	"	2-1-
19/20	"	2:59	1	0	"	58°-56°	W	"	<1-1
20/21	"	D 3:10	3	1	Wi	58-61	NW	"	1-3
21/22	"	"	0	0	"	58	strong NW	"	<1-2
22/23	"	"	0	0	"	56	strong NW	"	<1-1
23/24	"	"	0	0	"	54	strong NW	Cloudy	<1
24/25	Mo: 9:09	"	1	0	"	58°	N.W.	fog	<1-2
25/26	9:39	"	0	0	"	49°	W	fog	<1
26/27	10:06	"	0	0	"	44°	W	fog	<1-1
27/28	10:31	"	5	2	"	57°	SE	clear	1-3
28/29	10:55	"	4	2	"	54°	SE	clear	1-3
29/30	11:20	"	5	1	"	60°	NW	clear	2-3
			37	12					

19 nights

# Observing Log

Run No. 33

June, 1952

Date	Program	Plate No.	Emulsion Type	Emulsion No.	$\alpha$	$\delta$	Filter	Temp.	
June 11/12		No Observations							
June 12/13	Test	F-1	103a-E	486,815	15 <sup>h</sup>	+12°	#41	61°	PH-1
"	"	F-2	103a-o	458,884	"	"	—	"	PH-2
"	Zwicky	PS-551	103a-E	449,768	15 <sup>h</sup> 36 <sup>m</sup>	+30	*41	"	PH-1
June 13/14		(O-516) T-1	103a-o	486,773	14 <sup>h</sup> 40 <sup>m</sup>	+60	—	57	PH-2
"	Survey	O-516	"	"	"	"	—	"	"
"	"	E-516	103a-E	486,826	"	"	41	"	PH-1
June 14/15	Zwicky	PS-552	"	449,768	15 <sup>h</sup> 10 <sup>m</sup>	+24°	"	61	"
"	Survey	O-517	103a-o	486,773	16 <sup>h</sup> 28 <sup>m</sup>	+54°	—	60	
"	"	E-517	103a-E	486,826	"	"	41	60	
June 15/16	—	No Observations							
June 16/17	Survey	O-518	103a-o	486,773	16 <sup>h</sup> 08 <sup>m</sup>	+60		60	
"	"	E-518	103a-E	486,826	"	"	41	"	
"	"	O-519	103a-o	486,773	18 <sup>h</sup> 22 <sup>m</sup>	+54		"	
"	"	E-519	103a-E	486,826	"	"	41	"	
June 17/18	Zwicky	PS-553	"	449,768	15 <sup>h</sup> 36 <sup>m</sup>	+24°	"	62	
"	Survey	O-520	103a-o	486,773	17 <sup>h</sup> 36 <sup>m</sup>	+60°	—		
"	"	E-520	103a-E	486,826	"	"	41		
June 18/19	"	O-521	103a-o	486,773	16 <sup>h</sup> 26 <sup>m</sup>	+48°	—		
"	"	E-521	103a-E	486,826	"	"	41		
June 18/20	Zwicky	PS-554	103a-o	458,884	12 <sup>h</sup> 22 <sup>m</sup>	+12°	—		
June 20/21	Survey	E-522	103a-E	486,826	18 <sup>h</sup> 24 <sup>m</sup>	+18°	41	62	
"	"	O-522	103a-o	486,773					
"	"	E-522	103a-E	486,826			41		
June 21/22		No Observations							
June 22/23		No Observations							
June 23/24		No Observations							
June 24/25	Minkowski	PS-555	103a-E	449,768	17 <sup>h</sup> 20 <sup>m</sup>	-39°	41	58°	
June 25/26		No Observations							
June 26/27		No Observations							
June 27/28	Focus	F-3	103a-o	458,884	17 <sup>h</sup> 20 <sup>m</sup>	+15°	PH-2	58°	
"	Survey	O-523	103a-o	486,773	17 <sup>h</sup> 06 <sup>m</sup>	+54°	#41	58°	
"	"	E-523	103a-E	486,826	"	"	#41		
"	"	O-524	103a-o	486,773	19 <sup>h</sup> 38 <sup>m</sup>	+54°	#41	57°	
"	"	E-524	103a-E	486,826	"	"	#41		
June 28/29	Survey	O-525	103a-o	486,773	17 <sup>h</sup> 44 <sup>m</sup>	+54°		56°	
"	"	E-525	103a-E	486,826	"	"	#41	"	

Date	Program	Plate No	Emulsion Type	Emulsion No.	$\alpha$	$\delta$	Filter	Temp
June 28/29	Survey	0-526	103a-0	486,773	19° 16'	+48°	#	54°
	"	E-526	103a-E	486,826	"	"	# 41	"
June 29/30	Focus	F-4	103a-E	485,765	PH-1	# 41	20m? 14	
	"	F-5	103a-E	485,765	"	"	-200	
	"	F-6	103a-0	486,773	"	"	-300	
	Survey	<del>103a</del> 0-527	103a-0	486,773	17° 0'	+48°		
	"	E-527	103a-E	486,826	"	"	# 41	58°

# Supply Record

Run No. 33

July 1952

on hand beginning of run: June 11, 1952

D-19	Naccodix conc.	Naccodix	Acetic Acid	Dist. Water	
32	20	20	3 1/2	6	
Plates:	200"	48"	open	box	Total
103a-o 420,649	—	4	2	—	18
E 423,887	—	5	2	—	22
E 485,765	—	—	2	—	2
O 449,667	68x4	1x4	—	—	276
E 449,768	—	9x4	—	—	36
O 458,884	—	16x4	3	—	64
O 486,773	208x2	10x2	—	1	437
E 486,815	69x2	9x2	—	—	156
E 486,826	60x2	14x2	—	—	148
E 486,827	45x2	4x2	—	—	98

On Hand - End of Run: June 30, 1952

D-19	Naccodix Conc.	Naccodix	Acetic Acid	Dist. Water	
24 2/3	20	19	3 1/10	6	
Plates	200"	48"	Open	box	total
420,649	—	4x4	2	—	18
423,887	—	5x4	2	—	22
485,765	—	—	—	—	0
449,667	68x4	1x4	—	—	276
449,768	—	8x4	—	—	32
458,884	—	16x4	—	—	64
486,773	208x2	2x2	—	1	421
486,815	69x2	9x2	—	—	156
486,826	60x2	6x2	—	2	134
486,827	45x2	4x2	—	—	98



# Plate Testing Record

Run No. 33

June - 1952

Date	Emul. Type	Emul. No.	Total	Break	Good	Remarks
June 12	103a-0	458,884	1	—	1	
"	103a-E	486,815	1	—	1	
"	"	449,768	1	—	1	
June 13	"	486,826	1	—	1	
"	103a-0	486,773	1	—	1	
June 14	"	"	1	—	1	
"	103a-E	486,826	1	—	1	
"	"	449,768	1	—	1	
June 15	"	486,826	2	—	2	
"	103a-0	486,773	2	—	2	
June 17	"	"	2	—	2	
"	103a-E	486,826	2	—	2	
"	"	449,768	1	—	1	
June 18	"	486,826	2	—	2	
"	103a-0	486,773	2	—	2	
June 19	"	458,884	1	—	1	
June 21	"	486,773	4	2	2	2 broken in box
"	103a-E	486,826	4	+	3	1 not square
"	103a-0	458,884	1	—	1	
June 24	103a-E	449,768	1	—	1	
June 28	"	486,826	2	—	2	
"	103a-0	486,773	2	—	2	
June 29	"	"	2	—	2	
"	103a-E	486,826	2	—	2	
"	"	485,765	2	—	2	

# Observing Schedule

Run No. 34

July, 1952

Date	Start	Stop	No. of Plates	No. of Surveys	Observer	Night Temp.	Wind	Sky	Seeing
July 14/15	E: 8:45	Mr: 11:41	3	0	Ha	66° F.	N.W.	clear	1-2+
15/16	8:45	12:17	5	0	"	74°-68°	Slight N.W. breeze	"	2-3+
16/17	8:45	12:58	6	3	"	66°-68°	"	"	3-1
17/18	8:45	1:45	1	0	"	68-71	S. Wind	"	2-1-
18/19	8:45	2:37	4	2	"	73	"	"	2-<1
19/20	8:44	D: 3:28	6	2	"	71	"	"	1-2+
20/21	8:43	3:29	6	3	"	69°	Calm	"	2-3+
21/22	8:42	3:30	5	0	"	67°	"	"	2-3
22/23	8:41	3:30	9	4	"	69°	"	"	2-3+
23/24	8:40	3:31	0	0	Wi "	71°	"	Overcast	-
24/25	8:39	3:32	0	0	"	70°	"	Clouds	<1-3
25/26	Mo 8:59	3:33	0	0	"	67°	North	Clouds	3
26/27	9:23	3:34	0	0	"	65°	East	Clouds	-
27/28	9:48	3:35	4	1	"	65°	East	Clouds at midday	2
28/29	10:15	3:35	0	0	"	65°	North	Clouds	-
29/30	10:48	3:35	0	0	"	67°	Calm	Overcast	-
30/31	11:25	3:35	5	1	"	64°	calm	clear	3-4
17 nights			54	16					

Observing Log  
Run No. 34  
July, 1952

Date	Program	Plate No.	Emul. Type	Emul. No.	$\alpha$	$\delta$	Filter	Temp	
July 14/5	Focus	F-1	103a-E	486,826			#41		PH-1
"	"	F-2	103a-o	486,773			—		PH-2
"	"	F-3	103a-E	486,826			—		PH-3
July 15/6	Zwicky	PS-556	103a-o	488,889	15 <sup>h</sup> 14 <sup>m</sup>	+29°38'	—		PH-2
"	Test	QE-1	103a-E	488,350	S.R. 61		#41		PH-1
"	Focus	F-4	103a-E	486,815			41		
"	"	F-5	103a-o	449,667			—		
"	"	F-6	"	449,667			—		
July 16/7	Survey	O-528	103a-o	486,773	16 <sup>h</sup> 54 <sup>m</sup>	+24°			
"	"	E-528	103a-E	449,768	"	"	41		
"	"	O-529	103a-o	486,773	18 <sup>h</sup> 0 <sup>m</sup>	+18°			
"	"	E-529	103a-E	488,350	"	"	41		
"	"	O-530	103a-o	486,773	19 <sup>h</sup> 36 <sup>m</sup>	+36°			
"	"	E-530	103a-E	488,350	"	"	41		
July 17/8	Zwicky	PS-557	"	449,768	15 <sup>h</sup> 10 <sup>m</sup>	+30°	41		
July 18/9	Survey	O-531	103a-o	486,773	16 <sup>h</sup> 52 <sup>m</sup>	+60	—		
"	"	E-531	103a-E	449,768	"	"	41		
"	"	O-532	103a-o	486,773	17 <sup>h</sup> 46 <sup>m</sup>	+30			
"	"	E-532	103a-E	449,768	"	"	41		
July 19/20	Minkowski	PS-558	"	486,826	17 <sup>h</sup> 52 <sup>m</sup>	-30°	"		
"	"	PS-559	"	486,826	18 <sup>h</sup> 18 <sup>m</sup>	-30°	"		
"	Survey	O-533	103a-o	486,773	20 <sup>h</sup> 58 <sup>m</sup>	+48°			
"	"	E-533	103a-E	488,350	"	"	41		
"	"	O-534	103a-o	486,773	22 <sup>h</sup> 32 <sup>m</sup>	+30°			
"	"	E-534	103a-E	488,350	"	"	41		
July 20/1	Survey	O-535	103a-o	486,773	17 <sup>h</sup> 36 <sup>m</sup>	+12°			
"	"	E-535	103a-E	449,768	"	"	"		
"	"	O-536	103a-o	486,773	21 <sup>h</sup> 0 <sup>m</sup>	+42°			
"	"	E-536	103a-E	488,350	"	"	"		
"	"	O-537	103a-o	486,773	22 <sup>h</sup> 30 <sup>m</sup>	+42°			
"	"	E-537	103a-E	488,350	"	"	"		
July 21/22	Tests	T-1	103a-E	486,826	Polar Alignment				
		T-2	"	486,815	"	"			
		T-3	"	"	"	"			
		T-4	"	"	"	"			
		T-5	"	"	"	"			

# Observing Log

Run #34

Date	Program	Plate No.	Emul. Type	Emul. No.	$\alpha$	$\delta$	Filter	Temp.
July 22/23	Survey	O-538	103a-O	486,773	$16^h 42^m 20^s$	$+90^\circ$	41	
"	"	O-538	103a-E	488,760	"	"		
"	"	E-538	103a-E	488,760	"	"		
"	"	O-539	103a-O	486,773	$20^h 24^m$	$+48^\circ$		
"	"	E-539	103a-E	488,760	"	"	41	
"	"	O-540	103a-O	486,773	$21^h 16^m$	$+60^\circ$		
"	"	E-540	103a-E	449,768	"	"	41	
"	"	O-541	103a-O	486,773	$22^h 32^m$	$+30^\circ$		
"	"	E-541	103a-E	449,768	"	"	41	
July 23/24		No	Observations					
July 24/25		No	Observations					
July 25/26		No	Observations					
July 26/27		No	Observations					
July 27/28	Survey	O-542	103a-O	486,773	$19^h 0^m$	$+540$		
	"	E-542	103a-E	449,768	"	"	41	
	Focus	F-7	103a-O	449,667	PH-2			
	"	F-8	103a-E	486,815	PH-1 + #41			
July 28/29		No	Observations					
July 29/30		No	Observations					
July 30/31	Nova	PJ-560	103a-O	486,773	$18^h 53^m$	$-6^\circ$		
	"	PJ-561	103a-O	486,773	$19^h 17^m$	$-6^\circ$		
	Survey	O-543	103a-O	486,773	$20^h 16^m$	$+540$		
		E-543	103a-E	488,350	"	"	41	
		PJ-562	103a-E	449,768	$22^h 29^m$	$-18^\circ$	"	
			488,350	9				
			486,815	6				
			449,667	3				
			449,768	8				
				49				



Supply Record  
Run No 34  
July, 1952

On hand beginning of run: July 14, 1952

	D-19	Maccodix Sol. 100"	Maccodix 48"	Acetic Acid open	Dist. Water box	Total
	52	20	19	3 1/10	6	
103a-o	420,649	—	4(4)	2	—	18
E 423,887	—	—	5(4)	2	—	22
E 485,765	—	—	—	—	—	0
O 449,667	68(4)	—	1(4)	—	—	276
E 449,768	—	—	8(4)	—	—	32
O 458,884	—	—	16(4)	—	—	64
O 486,773	208(2)	—	2(2)	—	1	421
E 486,815	69(2)	—	8(2)	1	—	155
E 486,826	60(2)	—	6(2)	—	3	134
E 486,827	45(2)	—	4(2)	—	—	98
(New) E 488,350	—	—	8(2)	—	—	16

July 16 - from 200" 1/2 boxes 486,773

July 18 4 Gal. D-19 To 200"

July 24 5 boxes 486,773

On hand end of run: July 31, 1952

	O-19	Maccodix conc	Maccodix	Acetic Acid	Dist. Water				
	38 2/3 gal	16 gal	18 gal	3 gal	6 gal				
	Plates	200"	48"	Open	box	Total	Δ	Exp.	Tested
103a-o	420,649	—	4x4	2	—	18 ✓	0	0	0
E 423,887	—	—	5x4	2	—	22 ✓	0	0	0
<del>E 485,765</del>									
O 449,667	68x4	—	—	—	—	272 ✓	4	3	4
E 449,768	—	—	5x4	—	—	22 ✓	9	9	12
O 458,884	—	—	15x4	3	—	63 ✓	1	1	1
O 486,773	191x2	—	8x2	—	—	399	24	20	22
E 486,815	69x2	—	5x2	1	—	149 ✓	6	6	6
E 486,826	60x2	—	4x2	—	—	128 ✓	6	5	4
E 486,827	45x2	—	4x2	—	—	98 ✓	0	0	0
E 488,350	—	—	—	1	43	4 ✓	11	10	15

# Plate Testing Record

Run No. 34

July 14, 1952

Date	Emul. Type	Emul. No.	Total	Break	Good	Remarks
July 15	103a-O	449,667	3	1 ←	2	Corner off in box
"	"	458,884	1	—	1	
"	103a-E	486,815	1	—	1	
"	"	488,350	1	—	1	
July 16	"	449,768	1	—	1	
"	"	488,350	2	—	2	
"	103a-O	486,773	3	—	3	
July 17	103a-E	449,768	3	—	3	
"	103a-O	486,773	3	—	3	
"	103a-E	488,350	2	1 ←	1	Broken in box
July 18	"	449,768	1	—	1	
"	103a-O	486,773	1	—	1	
July 19	103a-E	486,826	3	1	2	
"	103a-O	486,773	1	—	1	
"	103a-E	449,768	2	1	1	
"	"	488,350	1	—	1	
July 20	"	"	3	1 ←	2	Broken in box
"	103a-O	486,773	3	1	2	
July 21	"	"	4	—	4	Totals T B G
"	103a-E	488,350	2	—	2	449,767 3 1 2
"	"	449,768	1	—	1	458,884 1 — 1
"	"	486,826	1	—	1	486,815 6 — 6
"	"	486,815	4	—	4	488,350 15 2 13
July 23	103a-O	486,773	2	1	1	449,768 12 1 11
"	"	449,667	1	—	1	486,773 22 2 20
"	103a-E	486,815	1	—	1	486,826 4 1 3
July 24	103a-O	486,773	4	—	4	449,667 4 1 3
"	103a-E	488,350	4	—	4	68 7 50
"	"	449,768	4	—	4	
July 30	103a-O	486,773	64	7	57	
			67	1	57	

Observing Schedule  
Run No. 35  
August 1952

	Date	Start	Stop	No. of Plates	No. of Survey Pair	Observers	Night Temp.	Wind.	Sky.	Seeing
	<del>Aug 7/8</del>									
	<del>8/9</del>									
	<del>9/10</del>									
	<del>10/11</del>									
Mon Aug	11/12	E: 8:17	Mr: 10:16	5	0	Ha	70°	calm	clear	2-3
	12/13	8:16	10:56	4	1	"	71°	S.E. Breeze	"	2
	13/14	8:15	11:42	1	0	"	73°	S.E. Wind	"	1-2
	14/15	8:14	0:32	2	0	"	73°	calm	"	1-3
	15/16	8:13	1:27	0	0	"	66°	S.E.	cloudy	—
	16/17	8:12	2:25	0	0	"	65°	N.W. Strong	clear?	<1-14
	17/18	8:11	3:23	8	4	"	70°	N.W. Breeze	clear	2-3
	18/19	8:10	0:35	12	6	"	72°	Slight N.W.	"	2-4
	19/20	8:09	3:57	12	6	"	66-72°	" "	"	2
	20/21	8:08	3:58	9	2	Wi	68°	Slight S	"	2-4
Thur	21/22	8:06	3:59	11	5	Wi	71°	"	"	2-4
	22/23	8:05	4:00	12	6	"	75°	"	"	3-4
	23/24	8:04	4:01	9	4	"	75°	So 4h	clear	2-3
	24/25	Ms: 8:19	4:02	4	0	"	74°	South	possible thin clouds	<1-2
	25/26	8:49	4:03	4	1	"	68°	"	thin clouds	3
	26/27	9:24	4:04	8	4	"	68°	N.W.	"?	1-3
	27/28	10:06	4:05	8	4	"	68°	calm	"?	1-3
	28/29	10:57	4:06	0	0	"			clouds	
	29/30	11:58	4:07			—				
	30/31	1:07	4:08			"				
Mon Aug	1/1	2:21	4:09			"				
	2/might			109	44				90 nights	

# Observing Log

Run No. 35

August 1952

Date	Program	Plate No.	Emulsion Type	Emulsion No.	$\alpha$	$\delta$	Filter	Tube Temp.
Aug. 11/12	Test	<del>103a-0 488,667</del>						
"	"	T-1	103a-E	486,865	Polar Plate		41	
"	"	F-1	103a-0	449,667	PH-3			75°
"	"	F-2	"	"	PH-2			72°
"	"	F-3	"	"	PH-1			72°
"	"	F-4	"	"	PH-4			73°
Aug. 12/13	Survey	O-544	103a-0	486,773	18 <sup>h</sup> 48 <sup>m</sup>	+12°		
"	"	E-544	103a-E	488,350	"	"	41	71°
"	"	O-545	103a-0	486,773	19 <sup>h</sup> 48 <sup>m</sup>	+60°		
"	"	E-545	103a-E	488,350	"	"	41	72°
Aug. 13/14	Test	QE-1	"	"	S.A. 87		41	72°
Aug. 14/15	"	QE-2	"	488,467	"		41	73°
"	"	F-5	103a-0	449,667	PH-4 Direct			
Aug. 15/16	—	No Observations						
Aug. 16/17	—	"	"	"	"	"	"	"
Aug. 17/18	Survey	O-546	103a-0	486,773	20 <sup>h</sup> 48 <sup>m</sup>	+66°		
"	"	E-546	103a-E	488,350	"	"	41	
"	"	O-547	103a-0	486,773	21 <sup>h</sup> 40 <sup>m</sup>	+66°		
"	"	E-547	103a-E	488,350	"	"	41	
"	"	O-548	103a-0	486,773	23 <sup>h</sup> 24 <sup>m</sup>	+66°		
"	"	E-548	103a-E	488,350	"	"	41	
"	"	O-549	103a-0	486,773	0 <sup>h</sup> 52 <sup>m</sup>	+66°		
"	"	E-549	103a-E	488,350	"	"	41	
Aug. 18/19		O-550	103a-0	486,773	18 <sup>h</sup> 12 <sup>m</sup>	+66°		
		E-550	103a-E	488,350	"	"	41	
		O-551	103a-0	486,773	19 <sup>h</sup> 04 <sup>m</sup>	+66°		
		E-551	103a-E	488,350	"	"	41	
		O-552	103a-0	486,773	21 <sup>h</sup> 12 <sup>m</sup>	+6°		
		E-552	103a-E	488,350	"	"	41	
		O-553	103a-0	486,773	22 <sup>h</sup> 32 <sup>m</sup>	+66°		
		E-553	103a-E	488,350	"	"	41	
		O-554	103a-0	486,773	23 <sup>h</sup> 30 <sup>m</sup>	+42°		
		E-554	103a-E	488,350	"	"	"	
		O-555	103a-0	486,773	0 <sup>h</sup> 0 <sup>m</sup>	+66°		
		E-555	103a-E	488,350	"	"	"	



# observing Log

Run No. 35

Aug. 1952

Date	Program	Plate No.	Emul. Type	Emul. No.	d	z	Filter		
Aug. 19/20	Survey	O-556	103a-o	486,773	18 <sup>h</sup> 08 <sup>m</sup>	+72°			
"	"	E-556	103a-E	488,350	"	"	41		
"	"	O-557	102a-o	486,773	19 <sup>h</sup> 16 <sup>m</sup>	+72°			
"	"	E-557	103a-E	488,350	"	"	"		
"	"	O-558	103a-o	486,773	20 <sup>h</sup> 48 <sup>m</sup>	+12°			
"	"	E-558	103a-E	488,350	"	"	"		
"	"	O-559	103a-o	486,773	22 <sup>h</sup> 40 <sup>m</sup>	+72°			
"	"	E-559	103a-E	488,350	"	"	"		
"	"	O-560	103a-o	486,773	23 <sup>h</sup> 48 <sup>m</sup>	+72°			
"	"	E-560	103a-E	488,350	"	"	"		
"	"	O-561	103a-o	486,773	0 <sup>h</sup> 0 <sup>m</sup>	+72°			
"	"	E-561	103a-E	488,350	"	"	"		
Aug. 20/21	Tests	T-2	103a-E	449,768	Pole				
"	"	T-3	103a-E	449,768	Pole				
"	"	F-6	103a-o	449,667	PH-1				
"	"	F-7	103a-o	449,667	PH-4				
"	"	F-8	103a-o	458,884	PH-3				
	Survey	O-562	103a-o	486,773	21 <sup>h</sup> 12 <sup>m</sup>	-18°			
	"	E-562	103a-E	488,350	"	"	"		
	"	O-563	103a-o	486,773	23 <sup>h</sup> 52 <sup>m</sup>	+90°			
	"	E-563	103a-E	488,350	"	"	"		
Aug 21/22	Test	F-9	103a-o	486,773	PH-3				
	Survey	O-564	103a-o	486,773	17 <sup>h</sup> 30 <sup>m</sup>	+84°			
	"	E-564	103a-E	488,350	"	"			
	"	O-565	103a-o	486,773	20 <sup>h</sup> 0 <sup>m</sup>	+84°			
	"	E-565	103a-E	488,350	"	"			
	"	O-566	103a-o	486,773	21 <sup>h</sup> 12 <sup>m</sup>	-6°			
	"	E-566	103a-E	488,350	"	"			
	"	O-567	103a-o	486,773	Pole @ 22 <sup>h</sup> 30 <sup>m</sup>				
	"	E-567	103a-E	488,350	"	"			
	"	O-568	103a-o	486,773	0 <sup>h</sup> 0 <sup>m</sup>	+84°			
<del>Aug 22/23</del>	"	E-568	103a-E	488,350	"	"			
Aug 22/23	Survey	O-569	103a-o	486,773	18 <sup>h</sup> 24 <sup>m</sup>	-18°			
	"	E-569	103a-E	488,350	"	"	42		
	"	O-570	103a-o	486,773	Pole at 19 <sup>h</sup> 43 <sup>m</sup>				
	"	E-570	103a-E	488,350	"	"	"		
	"	O-571	103a-o	486,773	21 <sup>h</sup> 12 <sup>m</sup>	0°			
	"	E-571	103a-E	488,350	"	"	"		

August, 1942

[illegible]

# Supply Record

Run No. 35

Aug. 1952

On hand beginning of run: Aug. 11, 1952						
D-19	Naccifix Conc.	Naccifix	Acetic Acid	Dist. Water		
38 1/2	8	10	3	6		
Plates	200"	Darkroom	48"	open	box	Total
420,649	—	—	4 (4)	2	—	18
423,887	—	—	5 (4)	2	—	22
449,667	38 (4)	26 (4)	2 (4)	—	—	128
449,768	—	—	5 (4)	—	2	22
458,884	—	—	15 (4)	3	—	63
486,773	191 (2)	—	8 (2)	—	1	399
486,815	18 (2)	51 (2)	5 (2)	1	—	139
486,826	—	60 (2)	4 (2)	—	—	128
486,827	16 (2)	29 (2)	4 (2)	—	—	98
488,350	—	34 (2)	—	—	3	21
488,467	—	59 (2)	—	—	—	118
488,520	—	71 (2)	—	—	—	142

Aug. 13 - From 200" 3 boxes (2) 488,350

From 200" → " To Pasadena - 1 box (2) each 488,350 - 488,467 - 488,520

" To 200" 4 Gal. D-19

Aug. 14 From 200" 1 box (2) each 488,467 - 488,520

Aug. 15 To 18" 2 Gal. D-19; 1/4 Gal. Acetic Acid

From 200" { Aug. 18 To Pasadena 5 boxes (2) each 488,467, 488,520  
" " " " 6 " (2) 488,520 520

Aug. 18, From 200" 7 boxes (2) each 486,773, 488,350

Aug 20 " " 7 " " " "

" 1 box (2) of 488,467 to Baade

" 1 box (2) of 488,350 to Baade

From Aug 23 13 boxes (2) of 486,826

200" " 7 boxes (2) of 486,773

" 17 boxes (2) of 488,350

Aug. 28 4 gal D-19 to 200"

4 gal Naccifix conc. to "

# Plate Test Record

Run No. 35

Aug. 1952

Date	Emul. Type	Emul. No.	Total	Break	Good	Remarks
Aug. 11	103a-O	449,667	4	—	4	
"	103a-E	486,815	1	—	1	
Aug. 12	103a-O	486,773	4	—	4	broke while loading
"	"	"	—	2	—	
Aug. 13	103a-E	488,350	1	—	1	
Aug. 14	"	488,467	1	—	1	
"	103a-O	449,667	1	—	1	
Aug. 16	"	486,223	3	2	1	
"	103a-E	488,350	1	—	1	
Aug. 17	"	"	2	—	2	
"	103a-O	486,773	3	1	2	
Aug. 18	"	"	6	—	6	
"	103a-E	488,350	6	—	6	
Aug. 19	"	"	7	1	6	broken in box
"	103a-O	486,773	6	—	6	
Aug 20	"	449,667	3	1	2	
"	"	486,773	2	—	2	
"	103a-E	488,350	2	—	2	
"	103a-O	458,884	1	—	1	
Aug 21	"	486,773	8	2	6	1 broken in box 1 testing
"	103a-E	488,350	6	1	5	1 Broken in box
Aug 22	"	"	6	—	6	
"	103a-O	486,773	8	2	6	1 broken in box 1 testing
Aug 23	103a-E	488,350	5	opened for inspection		
"	"	"	5	1	4	
"	"	488,467	1	—	1	
"	103a-O	486,773	6	2	4	broken in box
Aug 24	103a-E	488,350	8	4	4	2 broken in box 2 backed on emulsion
"	"	423,887	2	—	2	
"	103a-O	486,773	4	—	4	
"	"	458,884	2	—	2	
August 25	103a-E	488,520	2	—	2	
August 26	"	488,350	4	2	2	2 in properly coated
"	103a-O	486,773	2	—	2	
August 27	"	"	4	—	4	
"	103a-E	488,350	6	4	2	1 broken in box 3 backed wrong
Aug 28	103a-O	486,773	2	1	1	1 broken in box
"	103a-E	488,350	2	—	2	



Aug 29

0-19

@ 2/3 gal

Loccodix

12 gal

Conc. 12 gal

Acetic Acid

Distilled Water

48"

~~458,884~~

~~15x4~~

~~420,649~~

~~48x4x2~~

~~420,817~~

~~5x4~~

~~486,826~~

~~17x2~~

~~486,815~~

~~5x2~~

~~4x2~~

~~486,827~~

~~449,768~~

~~5x4~~

in boxes

~~488,350~~

~~3x2~~

~~+3~~

~~486,773~~

~~2~~

~~4 gal 0-19~~

~~4 gal Necrofix~~

~~Conc. to~~

~~200" Aug 28~~

Plate Vari 14:

~~488,467~~

~~55x2~~

~~488,520~~

~~63x2~~

~~486,815~~

~~19x2~~

~~486,827~~

~~16x2~~

~~486,773~~

~~170x2~~

~~449,667~~

~~39x4~~

200" Dark room

~~486,815~~

~~51x2~~

~~486,826~~

~~46x2~~

~~486,827~~

~~30x2~~

~~449,667~~

~~26x4~~

# Supply Record

Run No. 35

August, 1952.

On hand - end of run, August 27, 1952						
D-19	Mecody	Mecody Can	Acetic Acid	Dye. Wash		
6 2/3 gal	12 gal	12 gal	2 1/2	6 gal		
Plates:	200" Vault	200" Darkroom	4x4	Open	boxes	Total
420,649			4x4	2		18 103a-0
423,887			5x4			20 103a-E
449,667	39x4	26x4				260 103a-0
449,768			5x4			20 103a-E
458,884			15x4			60 103a-0
486,773	170x2				2	342 103a-0
486,815	19x2	51x2	5x2			150 103a-E
486,826		46x2	17x2			126 103a-E
486,827	16x2	30x2	4x2			100 103a-E
488,350			8x2		3	9 103a-E
488,467	55x2					110 103a-E
488,520	63x2					126 103a-E

# Observing Schedule

Run No. 36

September 1952

9/10

S.E. — clear — 41-1

Sept.

Date	Start	Stop	No. of Plates	No. of Survey Air	Observer	Night Temp	Wind	Sky	Seeing
10/11	7:35	10:26	2	0	Ha	46°	Strong S.	clear	<1 soft
11/12	7:33	11:21	0	0	"	47°	N.W. Breeze	WET variable	<1 soft
12/13	7:32	0:18	4	1	"	58°	N.E. "	clear	2-41
13/14	7:31	1:16	2	0	"	63°	S.E. "	"	<2-41
14/15	7:30	2:15	10	4	"	69°	S.E. "	"	2-4
15/16	7:29	3:12	10	5	"	72°	S. Moderate	"	2-2-
16/17	7:28	4:08	12	5	"	72°	S. Wind	"	2-4
17/18	7:27	4:22	10	5	" <del>Ha</del>	72°	S.W.	clouds at 2:30	1-2+
18/19	7:25	4:22	0	0	" <del>Ha</del>		S. form		
19/20	7:24	4:23	0	0	<del>Ha</del> Wi		"		
20/21	7:23	4:24	0	0	<del>Ha</del> "	60°		clouds	1-2
21/22	7:22	4:25	0	0	<del>Ha</del> "	64°		clouds	<1-3
22/23	Ms: 7:25	4:26	5	2	<del>Ha</del> "	64°	Calm	clear, wet	1-3
23/24	8:05	4:26	10	4	"	63°	"	"	1-3
24/25	8:52	4:27	7	0	"	66°	"	"	1-3
25/26	9:49	4:28	0	0	"			clouds	
26/27	10:53	4:29	-	-	-	-	-	-	-
27/28	12:03	4:30	4	2	Wi	64°	"	thin clouds	1-2
28/29	1:15	4:30	-	-	-	-	-	-	-

19 mgts  
20

76 28

Observing Log  
Run No. 36  
September, 1952

Date	Program	Plate No.	Emulsion Type	Emulsion No.	$\alpha$	$\delta$	Filter	Tube Temp.
Sept. 9/10	Test	T-1	103a-E	486,824	Polar Alignment		41	
"	"	T-2	"	"	"		"	
"	"	T-3	"	"	"		"	
"	"	T-4	"	"	"		"	
Sept. 10/11	"	T-5	"	"	"		"	
"	"	T-6	"	"	"		"	
Sept. 11/12	No Observations							
Sept. 12/13	Focus	F-1	103a-o	449,667	18 <sup>h</sup> 27 <sup>m</sup>	+18°	—	59°
"	"	F-2	103a-E	486,826	"	"	42	59°
"	Survey	O-588	103a-o	486,773	22 <sup>h</sup> 10 <sup>m</sup>	+54°	—	
"	"	E-588	103a-E	488,350	"	"	42	
Sept. 13/14	—	T-7	103a-o	486,773	22 <sup>h</sup> 40 <sup>m</sup>	+48°	—	
"	—	PS-565	"	458,884	18 <sup>h</sup> 48 <sup>m</sup>	-6°	—	
Sept. 14/15	Nova	PS-564	"	"	17 <sup>h</sup> 20 <sup>m</sup>	-24°	—	
"	NGC 663	PS-566	"	"	1 <sup>h</sup> 50 <sup>m</sup>	+60°	—	
"	Survey	O-589	"	486,773	21 <sup>h</sup> 32 <sup>m</sup>	+48°		
"	"	E-589	103a-E	488,350	"	"	42	
"	"	O-590	103a-o	486,773	22 <sup>h</sup> 40 <sup>m</sup>	+48°	—	
"	"	E-590	103a-E	488,350	"	"	42	
"	"	O-591	103a-o	486,773	0 <sup>h</sup> 24 <sup>m</sup>	0°	—	
"	"	E-591	103a-E	488,350	"	"	42	
"	"	O-592	103a-o	486,773	1 <sup>h</sup> 52 <sup>m</sup>	+36°	—	
"	"	E-592	103a-E	488,350	"	"	42	
Sept. 15/16	"	O-593	103a-o	486,773	20 <sup>h</sup> 32 <sup>m</sup>	+60°		
"	"	E-593	103a-E	488,350	"	"	42	
"	"	O-594	103a-o	486,773	22 <sup>h</sup> 0 <sup>m</sup>	+60°		
"	"	E-594	103a-E	449,768	"	"	42	
"	"	O-595	103a-o	486,773	23 <sup>h</sup> 26 <sup>m</sup>	+54°		
"	"	E-595	103a-E	449,768	"	"	42	
"	"	O-596	103a-o	486,773	0 <sup>h</sup> 44 <sup>m</sup>	+60°		
"	"	E-596	103a-E	449,768	"	"	42	
"	"	O-597	103a-o	486,773	2 <sup>h</sup> 12 <sup>m</sup>	+60°		
"	"	E-597	103a-E	449,768	"	"	42	
Sept. 16/17	"	O-598	103a-o	486,773	20 <sup>h</sup> 54 <sup>m</sup>	+54°		
"	"	E-598	103a-E	488,350	"	"	42	
"	"	O-599	103a-o	486,773	22 <sup>h</sup> 06 <sup>m</sup>	+48°		
"	"	E-599	103a-E	488,350	"	"	42	



Observing Log  
Run No. 36  
Sept., 1952

Date	Program	Plate No.	Emulsion Type	Emulsion No.	$\alpha$	$\delta$	Filter	Tube Temp.
Sept. 16/17	Survey	O-600	103a-O	486,773	23 <sup>h</sup> 24 <sup>m</sup>	+30		
"	"	E-600	103a-E	449,768	"	"	42	
"	"	O-601	103a-O	486,773	0 <sup>h</sup> 52 <sup>m</sup>	+30°		
"	"	E-601	103a-E	449,768	"	"	42	
"	"	O-603	103a-O	486,773	3 <sup>h</sup> 10 <sup>m</sup>	+54°		
"	"	E-603	103a-E	449,768	"	"	42	
Sept. 17/18	"	O-602	103a-O	486,773	3 <sup>h</sup> 48 <sup>m</sup>	+54°		
"	"	E-602	103a-E	449,768	"	"	"	
"	"	O-604	103a-O	486,773	20 <sup>h</sup> 48 <sup>m</sup>	+6°		
"	"	E-604	103a-E	449,768	"	"	"	
"	"	O-605	103a-O	486,773	22 <sup>h</sup> 44 <sup>m</sup>	+6°		
"	"	E-605	103a-E	449,768	"	"	"	
"	"	O-606	103a-O	486,773	23 <sup>h</sup> 50 <sup>m</sup>	+30		
"	"	E-606	103a-E	449,768	"	"	"	
"	"	O-607	103a-O	486,773	0 <sup>h</sup> 38 <sup>m</sup>	+54°		
"	"	E-607	103a-E	449,768	"	"	"	
Sept. 18/19		No	Observations					
Sept. 19/20		No	Observations					
Sept. 20/21		No	Observations					
Sept. 21/22		No	Observations					
Sept. 22/23	Survey	O-608	103a-O	486,773	21 <sup>h</sup> 32 <sup>m</sup>	+54°		
"	"	E-608	103a-E	449,768	"	"	"	
"	"	O-609	103a-O	486,773	4 <sup>h</sup> 24 <sup>m</sup>	0°		
"	"	E-609	103a-E	449,768	"	"	"	
"	Test	Q plate	103a-E	423,887	S. A.	68		
Sept. 23/24	Survey	O-610	103a-O	486,773	22 <sup>h</sup> 24 <sup>m</sup>	+18°		
"	"	E-610	103a-E	423,887	"	"	"	
"	"	O-611	103a-O	486,773	23 <sup>h</sup> 14 <sup>m</sup>	+48°		
"	"	E-611	103a-E	449,768	"	"	"	
"	"	O-612	103a-O	486,773	0 <sup>h</sup> 48 <sup>m</sup>	+6°		
"	"	E-612	103a-E	423,887	"	"	"	
"	"	O-613	103a-O	486,773	2 <sup>h</sup> 10 <sup>m</sup>	+30°		
"	"	E-613	103a-E	423,887	"	"	"	
"	Special	PS-568	103a-O	486,773	0 <sup>h</sup> 40 <sup>m</sup>	+40°38'	M-31	
"	"	PS-569	103a-O	486,773	3 <sup>h</sup> 44 <sup>m</sup>	+24°	Diagrams	
Sept. 24/25	Test.	T-8	103a-E	423,887	Pos. for	Alignment		
PS-570, 71, 72, 73, 74, 75					103a-O,	486,773	(See Log Book)	

# Observing Log

Run No. 36

Date	Program	Plate No.	Emulsion Type	Emulsion No.	$\alpha$	$\delta$	Filter	Tube Temp.
Sept 25/26			No	Observations				
Sept. 26/27			"	"				
Sept. 27/28	Survey	O-614	103a-O	486,773	1 <sup>h</sup> 44 <sup>m</sup>	+24°		
	"	E-614	103a-E	489,182	"	"	42	
	"	O-615	103a-O	486,073	3 <sup>h</sup> 12 <sup>m</sup>	+6°	"	
	"	E-615	103a-E	489,182	"	"	42	

# Supply Record

Run No. 36

Sep't. 1952.

On hand beginning	of run: Sep't. 10, 1952					
D-19 Naccifix Conc.	Naccifix	Acetic Acid	Dist. Water			
38 3/4	12	12	2 1/2	6		
Plates: 200" Vault	200" Darkroom	48" Refridg.	Open	boxes	total	
420,649	—	4 (4)	2	—	18	O
423,887	—	5 (4)	—	—	20	E
449,667	39 (4)	26 (4)	—	—	260	O From 200" Darkroom 2 boxes (4)
449,768	—	5 (4)	—	—	20	E
458,884	—	15 (4)	—	—	60	O
486,773	170 (2)	—	—	2	342	O From 200" Vault 22 boxes (2)
486,815	19 (2)	51 (2)	5 (2)	—	150	E
486,826	—	46 (2)	17 (2)	—	126	E
486,827	16 (2)	30 (2)	4 (2)	—	100	E
488,350	—	3 (2)	—	3	9	E
488,467	55 (2)	—	—	—	110	E
488,520	63 (2)	—	—	—	126	E

Sept. 18, 1 gal. D-19 To 200"

Sept. 22 4 gal D-19 to 200"

Sept. 24 5 boxes of 103-0

486,773

From 200"

Sept 25 4 gal D-19 18"

On hand, end of run, Sep't. 28, 1952

D-19 Naccifix Conc.	Naccifix	Acetic Acid	Dist. Water			
12 3/4 gal	8 gal	8 gal	2 1/4 gal	6		
Plates 200" Vault	200" Darkroom	48" Refridg.	Open	boxes	total	
420,649	—	4 x 4	2	—	18	O
423,887	—	4 x 4	2	—	18	E
449,667	39 x 4	24 x 4	1 x 4	3	259	O
449,768	—	—	—	1	1	E
458,884	—	14 x 4	1	—	57	O
486,773	142 x 2	7 x 2	—	1	301	O
486,815	19 x 2	51 x 2	5 x 2	—	150	E ✓
486,826	—	46 x 2	13 x 2	—	118	E ?
486,827	16 x 2	30 x 2	4 x 2	—	100	E ✓
488,467	55 x 2	—	—	—	110	E ✓
488,520	63 x 2	—	—	—	126	E ✓
489,182	—	11 x 2	—	—	22	E ✓

# Plate Test Record

Run No. 76

Sept. 1952.

Date	Emulsion Type	Emulsion No.	Total	Break	Good	Remarks
Sept. 9	103a-E	486,826	6	1	5	broken in box
" 10	"	"	1	-	1	
" 12	"	"	1	-	1	
" "	103a-O	449,667	1	-	1	
Sept. 13	"	458,884	2	-	2	
" "	103a-E	488,350	2	-	2	
" "	103a-O	486,773	2	-	2	
Sept. 14	"	"	3	1	2	
" "	"	458,884	1	-	1	
Sept. 15	"	486,773	6	1	5	
" "	103a-E	488,350	1	-	1	
" "	"	449,768	4	-	4	
Sept. 16	103a-O	486,773	6	-	6	
" "	103a-E	488,350	2	-	2	
" "	"	449,768	4	-	4	
Sept. 17	"	"	6	-	6	
" "	103a-O	486,773	6	-	6	
Sept. 22	103a-E	423,887	2	-	2	
" "	"	449,768	2	-	2	
" "	103a-O	486,773	2	-	2	
Sept. 23	"	"	6	1	5	
" "	103a-E	449,768	4	2	2	2 broken in box
" "	"	423,887	2	-	2	
Sept. 24	"	"	1	-	1	
" "	103a-O	486,773	6	-	6	
Sept. 27	"	"	4	1	3	1 broken in box
" "	103a-E	489,182	2	-	2	



# Observing Schedule

Run No. 37

October, 1952

Date	Start	Stop	No. of Plates	No. of Servo-tan	Observer	Night Temp	Wind	Sky	Seeing.
10/11	E: 6:54	M: 11:07	6	0	Ha	60°	W.	clear	2-3-2-
11/12	6:53	12:05	3	0	"	66°	S.E.	"	1-2-3-1
12/13	6:52	1:03	8	3	"	65°	Cal. 11:17	"	2-3-2
13/14	6:51	2:00	7	2	"	63°	N.W.	Thin clouds by 11:00	2-3
14/15	6:50	2:56	6	3	"	64°-70°	S.E.	Clouds until 10:00	2-3+
15/16	6:49	3:53	0	0	"		heavy overcast		
16/17	6:48	D: 4:43	0	0	"		"	"	
17/18	6:47	4:44	0	0	"		"	"	
18/19	6:46	4:44	5	1	"	59°	clouds until 8:00 and after 11:00		1-2
19/20	6:45	4:45	<del>2</del> 1	0	"		thin clouds	S.W.	2+
20/21	6:44	4:45	4	0	Wi		"	SE	<1-2+
21/22	M: 6:51	4:46	5	2	"	64°	"	Strong fog	<1-2+
22/23	7:45	4:46	14	7	"	61°	Clear	slight S.E.	2-4
23/24	8:47	4:47	3	0	"				
24/25	9:54	4:47	—	—	—	Telescope not functioning			
25/26	11:04	4:48	—	—	—				
26/27	12:15	4:49	—	—	—				
27/28	1:24	4:50	—	—	—				
28/29	2:33	4:50	—	—	—				
			62	19					
19 nights									
29/30		4:50			WX				

# OBSERVING LOG

## Run No. 37

October, 1952

Date	Program	Plate No.	Emulsion Type	Emulsion No.	$\alpha$	$\delta$	Filter	Tube Temp.
Oct. 10/11	Test	T-1	103a-E	486,815	Polar Alignment		41	66°
"	"	F-1	103a-o	449,667	Focus Plate		—	66°
"	"	F-2	103a-E	486,815	"	"	—	66°
"	Zwicky	PS-576	103a-o	486,773	22 <sup>h</sup> 55 <sup>m</sup> 28 <sup>s</sup>	-5°23'	—	
"	"	PS-577	"	"	0 <sup>h</sup> 40 <sup>m</sup>	+41°0'	—	
"	"	PS-578	"	"	1 <sup>h</sup> 23 <sup>m</sup> 19 <sup>s</sup>	-1°34'45"	—	
Oct. 14/12	Test	QE-1	103a-E	489,182	S.R. 90		41	66°
"	—	PS-579	103a-o	486,773	0 <sup>h</sup> 40 <sup>m</sup>	+41°	—	
"	Test	T-2	103a-E	486,815	Polar Alignment		41	66°
Oct. 12/13	Nova	PS-580	103a-o	486,773	18 <sup>h</sup> 55 <sup>m</sup>	-5°27'	—	69°
"	Ring Neb.	PS-581	"	"	18 <sup>h</sup> 51 <sup>m</sup>	+32°58'	—	69°
"	Survey	O-616	"	"	22 <sup>h</sup> 48 <sup>m</sup>	+54°		"
"	"	E-616	103a-E	489,182	"	"	42	69°
"	"	O-617	103a-o	486,773	0 <sup>h</sup> 0 <sup>m</sup>	+48°		"
"	"	E-617	103a-E	449,768	"	"	"	"
"	"	O-618	103a-o	486,773	1 <sup>h</sup> 54 <sup>m</sup>	+54°		"
"	"	E-618	103a-E	449,768	"	"	"	"
Oct. 13/14	Test	T-3	"	486,815	Polar Alignment		41	67°
"	Nova	PS-582	103a-o	486,773	18 <sup>h</sup> 55 <sup>m</sup>	-5°27'	—	"
"	Survey	O-619	"	"	22 <sup>h</sup> 48 <sup>m</sup>	+54°		
"	"	E-619	103a-E	489,182	"	"		
"	"	O-620	103a-o	486,773	0 <sup>h</sup> 0 <sup>m</sup>	+48°		
"	"	E-620	103a-E	489,182	"	"		
"	Test	T-4	"	486,815	Polar Plate		41	67°
Oct. 14/15	Survey	O-621	103a-o	486,773	2 <sup>h</sup> 0 <sup>m</sup>	+42°		
"	"	E-621	103a-E	489,182	"	"	42	
"	"	O-622	103a-o	486,773	3 <sup>h</sup> 24 <sup>m</sup>	+48°		
"	"	E-622	103a-E	489,182	"	"	"	
"	"	O-623	103a-o	486,773	4 <sup>h</sup> 46 <sup>m</sup>	+30°		
"	"	E-623	103a-E	489,182	"	"	"	
Oct. 15/16	—	No Observations						
Oct. 16/17		"	"	"				
Oct. 17/18		"	"	"				
Oct. 18/19	—	PS-583	103a-o	486,773	22 <sup>h</sup> 33 <sup>m</sup>	+33°	—	
"	Survey	O-624	103a-o	486,773	0 <sup>h</sup> 48 <sup>m</sup>	0°		
"	"	E-624	103a-E	489,189	"	"	42	
"	"	O-625	103a-o	486,773	1 <sup>h</sup> 54 <sup>m</sup>	+54°		
"	"	E-625	103a-E	489,189	"	"	42	

Observing Log.  
Run No. 37  
Oct., 1952

Date	Program	Plate No.	Emul. Type	Emul. No.	$\alpha$	$\delta$	Filter	tube Temp.
Oct. 19/20		No Observations						
		T-5	103a-E	486,818	Polar	Alignment		
Oct 20/21	Baade	PS-584	103a-E	486,815	19 <sup>h</sup> 58 <sup>m</sup>	+40°35'		
	"	PS-585	103a-E	489,182	23 <sup>h</sup> 21 <sup>m</sup>	+58°32'		
		PS-586	103a-0	486,773	0 <sup>h</sup> 16 <sup>m</sup>	+31°		
	Minkowski	PS-587	103a-E	489,182	2 <sup>h</sup> 12 <sup>m</sup>	+60°		
Oct 21/22		PS-588	103a-0	486,773	19 <sup>h</sup> 42 <sup>m</sup> .1	-14°53'		
	Survey	O-626	103a-0	486,773	22 <sup>h</sup> 24 <sup>m</sup>	+6°		
	"	E-626	103a-E	489,182	"	"		
	"	O-627	103a-0	486,773	0 <sup>h</sup> 48 <sup>m</sup>	+18°		
	"	E-627	103a-E	489,182	"	"		
Oct 22/23	Survey	O-628	103a-0	486,773	23 <sup>h</sup> 28 <sup>m</sup>	+60°		
	"	E-628	103a-E	489,182	"	"		
	"	O-629	103a-0	486,773	0 <sup>h</sup> 52 <sup>m</sup>	-24°		
	"	E-629	103a-E	489,182	"	"		
	"	O-630	103a-0	486,773	2 <sup>h</sup> 0 <sup>m</sup>	+6°		
	"	E-630	103a-E	489,182	"	"		
	"	O-631	103a-0	486,773	3 <sup>h</sup> 16 <sup>m</sup>	+36°		
	"	E-631	103a-E	489,182	"	"		
	"	O-632	103a-0	486,773	4 <sup>h</sup> 20 <sup>m</sup>	+30°		
	"	E-632	103a-E	489,182	"	"		
	"	O-633	103a-0	486,773	5 <sup>h</sup> 36 <sup>m</sup>	-12°		
	"	E-633	103a-E	489,182	"	"		
	"	O-634	103a-0	486,773	6 <sup>h</sup> 56 <sup>m</sup>	+24°		
	"	E-634	103a-E	489,182	"	"		
Oct 23/24	Tests	F-3	Focus					
		T-6	Polar					
		T-7	Trails					
	Later:	T-8	"					
		T-9	"					

# SUPPLY RECORD

RUN No. 37

October, 1952

On hand beginning of run: Oct. 10, 1952						
D-19	Naccofix conc.	Naccofix	Acetic Acid	Dist. Water		
32 <sup>3</sup> / <sub>4</sub>	16	8	2 <sup>1</sup> / <sub>5</sub>	6		
Plates:	200" vault	200" Darkroom	48" Ref.	open	box	Total
420,649	—	—	4 x 4	2	—	18 O
423,887	—	—	3 x 4	3	—	15 E 3 missing
449,667	39 x 4	24 x 4	<del>1 x 4</del>	3	—	259 O
449,768	—	—	—	—	1	1 E
458,884	—	—	14 x 4	1	—	57 O
486,773	143 x 2	—	7 x 2	—	1	301 O From 100" 12 x 2
486,815	19 x 2	51 x 2	5 x 2	—	—	150 E
486,826	—	46 x 2	13 x 2	—	—	118 E
486,827	16 x 2	30 x 2	4 x 2	—	—	100 E
488,467	55 x 2	—	—	—	—	110 E
488,520	63 x 2	—	—	—	—	126 E
489,182	—	—	11 x 2	—	—	22 E From 100" 6 x 2

4 gal. D-19 To 200"

$\frac{1}{2}$  " 287 acetic Acid To 200"



# Plate Test Record

Run No. 37

Oct. 1952

Date	Emulsion Type	Emulsion No.	Total	Break	Good	Remarks
Oct. 10	103a-O	449,667	1	—	1	
"	103a-E	486,815	2	—	2	
"	103a-O	486,773	2	—	2	
Oct. 11	"	"	2	—	2	
"	103a-E	489,182	2	—	2	
"	"	486,815	2	1	1	
Oct. 12	103a-O	486,773	4	—	4	
Oct. 13	103a-E	486,815	2	—	2	
"	"	489,182	4	—	4	
"	103a-O	486,773	4	—	4	
Oct. 14	"	"	2	—	2	
"	103a-E	489,182	2	—	2	
Oct. 15	"	"	4	—	4	
"	103a-O	486,773	4	—	4	
Oct. 18	"	"	2	—	2	
Oct. 19	103a-E	486,815	1	—	1	
Oct. 20	"	"	1	—	1	
"	"	489,182	2	1	1	1 broken in box.
Oct. 21	"	"	4	—	4	
"	103a-O	486,773	6	—	6	
Oct. 22	103a-E	489,182	4	—	4	
"	103a-O	486,773	2	—	2	
Oct. 23	"	449,667	2	—	2	
Oct. 25	103a-O	449,667	2	1	1	
Oct. 28	103a-E	423,887	1		1	

# Observing Schedule

Run No. 38

Nov. - 1952

Date	Start	Stop	No. of Plates	No. of Survey Pr.	Observer	Nite Temp.	Wind	Sky	Seeing
7/8	E: 6:29	M: 9:49	0	0	Ha	50°	W.	fog - Rain	—
8/9	6:28	10:48	1	0	"	46°	N.W.	fog until 10:00	wet 4.1
9/10	6:28	11:45	0	0	"	48°	Strong N.	Muddy - wet	Soft 4.1
10/11	6:27	12:41	5	0	Wi	54°	light S.E.	clear	1-3+
11/12	6:27	1:37	0	0	"		Overcast		
12/13	6:26	2:34	2	0	"	42°	Strong N.W.	clear until 11 - then thin	<1
13/14	6:26	3:32	7	0	"	46°	West.	clear until 2:00	<1-3+
14/15	6:25	D: 5:04	0	0	"		Storm		
15/16	6:25	5:05	0	0	"		"		
16/17	6:25	5:05	0	0	"	26°	Wet & intermittent fog		<1
17/18	6:24	5:06	3	0	"	36°	High N.E. Wind		<1
18/19	<del>6:23</del> 6:23	5:06	0	0	Ha	40°	Strong E.	clear	Soft 4.1
19/20	M: 6:34	5:07	0	0	"	49°	E.	"	<1-1
20/21	7:41	5:08	0	0	"	48°	N.W.	Cloudy	1
21/22	8:51	5:09	4	0	"	40°	N.W.	partly fog clear	1, 2, <1
22/23	10:02	5:10	0	0	"		storm (snow)		
23/24	11:11	5:11	0	0	"	14°	Strong N.	Scattered clouds	<<1
24/25	12:19	5:12	0	0	"	32°	N.W.	Clear	Soft, <1
			22	0					

# Observing Log

Run No. 38

Nov. - 1952

Date	Program	Plate No.	Emul. Type	Emul. No.	$\alpha$	$\delta$	Filter	Tube Temp.
Nov. 7/8	—	No Observations						
" 8/9	Test	T-1	103a-E	423,887	Polar Alignment		42	
" 9/10	—	No Observations						
Nov. 10/11	Tests	F-1	103a-E	423,887	PH-1 + #42			
	"	F-2	103a-0	423,649	PH-1			
	"	T-2	103a-E	423,887	Polar Alignment			
	"	T-3	103a-0	458,884	Trail plate			
	"	T-4	103a-E	423,887	Trail Plate			
Nov. 11/12		No Observations						
Nov. 12/13	Tests	(PS-589	103a-E	423,887	Seeing trails)			
	"	Q-X5J2	103a-E	X5J2				
Nov. 13/14	Tests	Q-X5J2-2	103a-E	X5J2				
	"	F-3	103a-E	423,887	PH-3			
	"	F-4	103a-E	423,887	PH-1 + #46			
	"	F-5	103a-E	423,887	PH-1 + #45			
	"	PS-589	103a-0	458,884	0 <sup>h</sup> 15 <sup>m</sup> + 31°			
	"	PS-590	103a-0	458,884	1 <sup>h</sup> 34 <sup>m</sup> + 15° 32'			
	"	PS-591	103a-0	458,884	2 <sup>h</sup> 40 <sup>m</sup> - 0° 12'			
Nov. 14/15		No Observations						
Nov. 15/16		No Observations.						
Nov. 16/17		No Observations						
Nov. 17/18	Tests	F-6	103a-0	458,884	PH-1			
	"	F-7	103a-0	486,773	PH-3			
	"	T-5	103a-E	X5J2	Polar Alignment			
Nov. 18/19	—	No Observations						
" 19/20	—	"	"	"				
" 20/21		"	"	"				
" 21/22	Test	T-6	103a-0	486,773	S.A. 49			
		T-7	"	"	" "			
		T-8	"	"	4 <sup>h</sup> 53 <sup>m</sup> + 6°			
		T-9	103a-E	X5J2	" "			
Nov. 22/23		No Observations						
" 23/24		"	"	"				
" 24/25		"	"	"				

# Supply Record

Run No. 38  
Nov. - 1952

On hand beginning of run : Nov. 7, 1952

D-19	Naccofix conc.	Naccofix	Acetic Acid	Dist. Water			
48	40	32	1 3/8	6			
Plates	Vault 200"	Darkroom 200"	48"	open	box	Total	
420,649	—	—	4x4	2	1	19	0
423,887	—	—	3x4	2	—	14	E
449,667	40x4	24x4	—	—	—	256	0
458,884	—	—	14x4	1	—	57	0
486,773	131x2	—	5x2	—	—	272	0
486,815	18x2	48x2	1x2	—	—	134	E
486,826	—	47x2	13x2	—	—	120	E
486,827	16x2	29x2	4x2	—	—	98	E
488,467	48x2	7x2	—	—	—	110	E
488,520	—	63x2	—	—	—	126	E
489,182	—	30x2	6x2	—	—	72	E
X5J2	115x2	—	4x2	—	—	238	E

about 1444 to 200" 4 D-19 4 conc.  
From 200" Nov. 17. 17 boxes 486,773  
1 19 boxes X5J2

On hand end of Run - Nov. 25 - 1952

D-19	Naccofix conc.	Naccofix	Acetic Acid	Dist. Water			
42	<del>32</del> 32	31	1 3/8	6			
Plates	Vault 200"	Darkroom 200"	48"	open	box	Total	
420,649	—	—	4x4	2	—	18	
423,887	—	—	1x4	—	—	4	
449,667	40x4	24x4	—	—	—	256	
458,884	—	—	13x4	—	—	52	
486,773	114x2	—	17x2	—	5	267	
486,815	18x2	48x2	1x2	—	—	134	
486,826	—	47x2	13x2	—	—	120	
486,827	16x2	29x2	4x2	—	—	98	
488,467	48x2	7x2	—	—	—	110	
488,520	—	63x2	—	—	—	126	
489,182	—	30x2	6x2	—	—	72	
X5J2	96x2	—	17x2	—	8	234	



# Plate Test Record

Run No. 38

Nov. - 1952

Date	Emul. Type	Emul. No.	Total	Break	Good	Remarks
Nov. 8	103a-E	423,887	1	—	1	
Nov. 10	"	"	5	1	4	1 broken in box
"	103a-O	458,884	1	—	1	
Nov. 12	103a-E	423,887	4	—	4	
"	"	X5J2	2	—	2	
Nov. 13	103a-O	458,884	4	—	4	
"	103a-E	X5J2	2	—	2	
Nov. 16	"	"	4	—	4	
"	103a-O	486,773	6	1	5	1 broken in box
Nov. 17	"	"	4	—	4	
"	103a-E	X5J2	4	—	4	

# Observing ~~Log~~ Schedule

Run No. 39

Dec. - 1952

Date	Start	Stop	No. Plates	No. of Survey P.	Observer	Nite Temp	Wind	Sky	Seeing
Dec. 9/10	E=6:21	M=12:21	2	0	Ha	34°	N.W.	Clear	1-1+
10/11	6:21	1:17	2	1	"	36°	"	clouds by 7:30	2, 2-
11/12	6:21	2:17	0	0	"	40°	Strong N.E.	Clear	<1
12/13	6:22	3:18	0	0	"	40°	Very Strong E.	Clear	Soft <1
13/14	6:22	4:24	2	1	"	37°	N.E.	Clear	2-, <1 Soft
14/15	6:22	D=5:26	1	0	"	45°	N.E.	"	1
15/16	6:23	5:27	0	0	"	48°	S.E.	Heavy Clouds	1
16/17	6:23	5:28	0	0	"	40°	Strong S.E.	Heavy "	
17/18	6:24	5:28	0	0	-		Overcast		
18/19	M=6:37	5:29	0	0	-		"		
19/20	7:50	5:30	0	0	Wi		Storm		
20/21	9:01	5:31	0	0	"		"		
21/22	10:10	5:31	6	2	"	38°	N	clear	<1 to 1+
22/23	11:18	5:32	-	-	-				
23/24	12:24	5:32	-	-	-				
			13	4					

# Observing Log

Run No. 39

Dec. - 1952

Date	Program	Plate No.	Emul. Type	Emul. No.	$\alpha$	$\delta$	Fiter	Tube Temp.	
Dec. 9/10	Test	F-1	103a-0	486,773					PH-1
"	"	F-2	103a-E	X5J2			38	48°	PH-2
Dec. 10/11	Survey	O-635	103a-0	486,773	1 <sup>h</sup> 12 <sup>m</sup>	+12°			
"	"	E-635	103a-E	X5J2	"	"	38		
Dec. 11/12	—	No Observations							
Dec. 12/13	—	"	"	"					
Dec. 13/14	Survey	O-636	103a-0	486,773	0 <sup>h</sup> 0 <sup>m</sup>	+54°			
"	"	E-636	103a-E	X5J2	"	"	46		
Dec. 14/15		PS-592	103a-0	486,773	1 <sup>h</sup> 06 <sup>m</sup> 27 <sup>s</sup>	-15° 40'			
Dec. 15/16	—	No Observations							
Dec. 16/17	—	"	"	"					
Dec 17/18		"	"	"					
Dec 18/19		"	"	"					
Dec 19/20		"	"	"					
Dec 20/21		"	"	"					
Dec 21/22	Survey	O-637	103a-0	486,773	5 <sup>h</sup> 40 <sup>m</sup>	+48°		38°	
"	"	E-637	103a-E	X5J2	"	"	#46		
"	"	O-638	103a-0	486,773	8 <sup>h</sup> 24 <sup>m</sup>	0°			
"	"	E-638	103a-E	X5J2	"	"	#46		
	Test	PS-593	103a-E	X5J2	Aldabarn				
	Hubble	PS-594	103a-0	486,773	M81				

# Supply Record

Run No. 39  
Dec. - 1952

On hand beginning of run:-				Dec. 9, 1952		
D-19	Nacco. Conc.	Naccofix	Acetic Acid	Dist. Water		
42	<del>25</del> 24	31	1 7/8	6		
Plates	200" vault	200" Darkroom	48"	open	box	Total
420,649	-	-	4x4	2	-	18
423,887	-	-	1x4	-	-	4
449,667	40x4	24x4	-	-	-	256
458,884	-	-	13x4	-	-	52
486,773	114x2	-	17x2	-	5	267
486,815	18x2	48x2	1x2	-	-	134
486,826	-	47x2	13x2	-	-	120
486,827	16x2	29x2	4x2	-	-	98
488,467	48x2	7x2	-	-	-	110
488,520	-	63x2	-	-	-	126
489,182	-	30x2	6x2	-	-	72
X5J2	96x2	-	17x2	-	8	224
To 200" 12-12-52		4 Gal	Naccofix Conc.			
"	"	4 "	D-19			

To Pasadena. Dec. 22: 6 plates: 486,827  
6 plates: 486,826

On hand end of run:				Dec. 22, 1952		
D-19	Nacco. conc.	Naccofix	Acetic Acid	Dist. Water		
54 1/2 gal	20 gal	30 gal	17 1/2 gal	6 gal		
Plates	200" vault	200" Darkroom	48"	open	box	total
420,649	-	-	4x4	2	-	18
423,887	-	-	1x4	-	-	4
449,667	41x4	24x4	-	-	-	256
458,884	-	-	13x4	-	-	52
486,773	114x2	-	12x2	2	5	259
486,815	18x2	48x2	1x2	-	-	134
486,826	-	47x2	10x2	-	-	114
486,827	16x2	29x2	1x2	-	-	92
488,467	48x2	7x2	-	-	-	110
488,520	-	63x2	-	-	-	126
489,182	-	30x2	6x2	-	-	72
X5J2	96x2	-	15x2	-	6	228



# Plate test Record

Run No. 39

Dec. - 1952

Date	Emul. Type	Emul. No.	Total	Break	Good
Dec. 11	103a-E	X5J2	2	—	2
"	103a-0	484773	6	—	6
Dec. 13	"	"	2	1	1
"	103a-E	X5J2	2	—	2

# Observing Schedule

Run No. 40

January 1953

Date	Start	Stop	No. Plates	No. of Survey Pair	Observer	Night Temp.	Wind	Sky	Seeing
Jan 5/6	E: 6:35	M: 10:05	3	0	Wi	46°	strong south	Clouds at 9:00	1
6/7	6:36	11:00	0	0	"	-	-	Storm	-
7/8	6:37	11:57	0	0	"	-	-	Storm	-
8/9	6:38	0:56	10	4	"	52°	Light NW to calm	Clear	3-4
9/10	6:39	1:58	14	7	"	59°	calm	Clear	1-3
10/11	6:40	3:03	2	1	"	60°	SSE	clouds at 8:00	1-2
11/12	6:41	4:09	4	2	"	50°	SSW	clouds at 10:00	1-3
12/13	6:42	5:14	0	0	"	48°	WNW	Partly Cloudy	1-2
13/14	6:43	D 5:32	0	0	"			Storm	
14/15	6:44	5:31	0	0	"	< 32°	W	Storm	
15/16	6:45	5:30	4	0	Ha	33°	Gusty N.	clear possible haze	< 1-1
16/17	6:46	5:30	7	2	"	42°	N.W.	clear, clouds by 1:00 AM	1-3
17/18	Ms 7:42	5:30	2	0	"	46°	N.W.	clouds	< 1-1
18/19	8:54	5:30	0	0	"	44°	gusty N.W.	clouds	1-2+
19/20	10:04	5:30	13	6	"	46°	N.W. broke	clouds at 3:00 P.M.	2-3+
20/21	11:13	5:30	0	0	"	36°	Strong N.	fog	
21/22	0:21	5:30	0	0	"	40°	calm	clear	< 1 Soft
			59	22					

# Observing Log

Run No. 40

January 1953

Date	Program	Plate No.	Emulsion Type	Emulsion No.	$\alpha$	$\delta$	Filter	Tube Temp.
Jan 5/6	Tests	F-1	103a-0	486,773	PH-1			
	"	F-2	103a-0	486,773	PH-3			
	"	T-1	103a-E	X5J2	PH-3 + #46		Polar Alignment	
Jan 6/7		No	Observations					
Jan 7/8		No	Observations					
Jan 8/9	Test	T-2	103a-E	423,887	PH-3 + #46		Polar Alignment	
	Survey	O-639	103a-0	486,773	5 <sup>h</sup> 12 <sup>m</sup>	+18°	#46	
	"	E-639	103a-E	X5J2	"	"		
	"	O-640	103a-0	486,773	6 <sup>h</sup> 0 <sup>m</sup>	0°		
	"	E-640	103a-E	X5J2	"	"		
	"	O-641	103a-0	486,773	7 <sup>h</sup> 12 <sup>m</sup>	+18°		
	"	E-641	103a-E	X5J2	"	"		
	"	O-642	103a-0	486,773	8 <sup>h</sup> 24 <sup>m</sup>	+6°		
	"	E-642	103a-E	X5J2	"	"		
	Hubble	PS-594	103a-0	486,773	M 81			
Jan 9/10	Survey	O-643	103a-0	486,773	3 <sup>h</sup> 30 <sup>m</sup>	+42°		
	"	E-643	103a-E	X5J2	"	"		
	"	O-644	103a-0	486,773	4 <sup>h</sup> 30 <sup>m</sup>	+42°		
	"	E-644	103a-E	X5J2	"	"		
	"	O-645	103a-0	486,773	5 <sup>h</sup> 30 <sup>m</sup>	+42°		
	"	E-645	103a-E	X5J2	"	"		
	"	O-646	103a-0	486,773	6 <sup>h</sup> 48 <sup>m</sup>	-18°		
	"	E-646	103a-E	X5J2	"	"		
	"	O-647	103a-0	486,773	7 <sup>h</sup> 12 <sup>m</sup>	-18°		
	"	E-647	103a-E	X5J2	"	"		
	"	O-648	103a-0	486,773	8 <sup>h</sup> 24 <sup>m</sup>	+36°		
	"	E-648	103a-E	X5J2	"	"		
	"	O-649	103a-0	486,773	9 <sup>h</sup> 36 <sup>m</sup>	-6°		
	"	E-649	103a-E	X5J2	"	"		
Jan 10/11	Survey	O-650	103a-0	486,773	3 <sup>h</sup> 58 <sup>m</sup>	+48°		
	"	E-650	103a-E	X5J2	"	"		
Jan 11/12	Survey	O-651	103a-0	486,773	4 <sup>h</sup> 0 <sup>m</sup>	+42°		
	"	E-651	103a-E	X5J2	"	"		
	"	O-652	103a-0	486,773	4 <sup>h</sup> 48 <sup>m</sup>	-18°		
	"	E-652	103a-E	X5J2	"	"		
Jan 12/13		No	Observations					
Jan 13/14		No	Observations					

## OBSERVING LOG

Date	Program	Plate No	Emulsion Type	Emulsion No.	$\alpha$	$\delta$	Filter	Tube Temp
Jan. 14/15			No Observations					
Jan. 15/16		PS-595	103a-O	486,773	6 <sup>h</sup> 43 <sup>m</sup>	-16°	—	
"	So. Survey	SXE-1	103a-E	X5J2	3 <sup>h</sup> 28 <sup>m</sup>	-30°	#46	
"	"	SXE-2	"	"	7 <sup>h</sup> 28 <sup>m</sup>	-36°	"	
"	"	SXE-3	"	"	10 <sup>h</sup> 50 <sup>m</sup>	-30°	"	
Jan. 16/17	"	SXE-4	"	"	3 <sup>h</sup> 02 <sup>m</sup>	-30°	"	
"	"	SXE-5	"	"	3 <sup>h</sup> 44 <sup>m</sup>	-36°	"	
"	"	SXE-6	"	"	5 <sup>h</sup> 38 <sup>m</sup>	-30°	"	
"	Survey	O-653	103a-O	486,773	6 <sup>h</sup> 48 <sup>m</sup>	-6°	—	
"	"	E-653	103a-E	X5J2	"	"	"	
"	"	O-654	103a-O	486,773	7 <sup>h</sup> 56 <sup>m</sup>	+48°	—	
"	"	E-654	103a-E	X5J2	"	"	"	
Jan. 17/18	—	PS-596	103a-O	486,773	8 <sup>h</sup> 48 <sup>m</sup>	+12°	—	
	—	PS-597	"	"	"	"	—	
Jan. 18/19		No Observations						
Jan. 19/20	Survey	O-655	103a-O	486,773	6 <sup>h</sup> 04 <sup>m</sup>	-24°		
"	"	E-655	103a-E	X5J2	"	"	46	
"	"	O-656	103a-O	486,773	7 <sup>h</sup> 22 <sup>m</sup>	-24°		
"	"	E-656	103a-E	X5J2	"	"	"	
"	"	O-657	103a-O	486,773	8 <sup>h</sup> 24 <sup>m</sup>	-6°		
"	"	E-657	103a-E	X5J2	"	"	"	
"	"	O-658	103a-O	486,773	9 <sup>h</sup> 30 <sup>m</sup>	0°		
"	"	E-658	103a-E	X5J2	"	"	"	
"	"	O-659	103a-O	486,773	10 <sup>h</sup> 24 <sup>m</sup>	+6°		
"	"	E-659	103a-E	X5J2	"	"	"	
"	"	O-660	103a-O	486,773	12 <sup>h</sup> 48 <sup>m</sup>	-6°		
"	"	E-660	103a-E	X5J2	"	"	"	
"	—	PS-598	103a-O	486,773	11 <sup>h</sup> 44 <sup>m</sup>	-3°35'	—	
Jan. 20/21		No Observations						
Jan. 21/22		"	"	"				



# Supply Record

Run No. 40

January 1953

On hand	beginning of	run:	Jan 5, 1953			
D-19	Nacco Conc.	Naccotix	Acetic Acid	Dist. Water		
34 1/2 gal	20 gal	30 gal	1 7/8 gal	0 gal		
Plates:	200" Vack	200" Darkgreen	48" open	box	total	
420,649	-	-	4x4	2	-	18
423,887	-	-	1x4	-	-	4
449,667	70x4	24x4	-	-	-	266
458,884	-	-	18x4	-	-	52
486,773	114x2	-	12x2	2	5	269
486,815	18x2	48x2	1x2	-	-	134
486,826	-	47x2	10x2	-	-	114
486,827	16x2	29x2	1x2	-	-	92
488,467	48x2	7x2	-	-	-	110
488,520	-	63x2	-	-	-	126
489,182	-	30x2	6x2	-	-	72
X5J2	96x2	-	15x2	-	6	228
2 gal. D-19 To 200"						
24 plates X5J2's to 48"						
24 " 486,773's						
3 boxes (12 plates) 103a-0 420,649 to Pasadena						
on hand	end of	run:	Jan. 12, 1953			
D-19	Nacco Conc.	Naccotix	Acetic Acid	Dist. Water		
18	20	30	1 1/3	6		
420,649	-	-	1	2	-	6
423,887	-	-	-	-	2	2
449,667	12x4	52x4	-	-	-	256
458,884	-	-	13x4	-	-	52
486,773	103x2	-	12x2	-	1	231
486,815	18x2	48x2	2x2	-	-	136
486,826	-	47x2	10x2	-	-	114
486,827	16x2	29x2	-	-	-	90
488,467	47x2	7x2	-	-	-	110
488,520	-	63x2	-	-	-	126
489,182	30x2	-	6x2	-	-	72
X5J2	84x2	-	14x2	-	2	198

# Plate Test Record

Run No. 40

January 1953

Date	Emul/sim Type	Emul/sim No.	Total	Break	Good	
Jan 5	103a-D	486,773	2	-	2	
Jan 8	103a-E	423,887	4	1	3	1 broken in box
Jan 9	"	X5J2	6	-	6	
"	103a-D	486,773	8	1	7	
Jan 10	"	"	2	-	2	
"	103a-E	X5J2	2	-	2	
Jan 11	"	"	2	-	2	
"	103a-D	486,773	2	-	2	
Jan 12	"	"	10	-	10	
"	103a-E	X5J2	10	-	10	
Jan. 18	"	"	6	1	5	broke during Exp.
" 19	103a-D	486,773	2	-	2	

# Observing Schedule

Run No. 41

February 1953

Date	Start	Stop	No. Plates	No. of Sunny Pairs	Observer	Night Temp.	Wind	Sky	Seeing
Feb. 5/6	E: 7:01	Mr. 11:56	0	0	Wi	56°	strong NE	almost Overcast	<1-1
6/7	7:01	12:59	4	0	"	55	strong N	thin clouds	<1
7/8	7:02	2:02	8	2	"	54°	mod. NW	intermittent clouds	<1-2
8/9	7:03	3:05	0	0	"	31°	NW	thin clouds	<1
9/10	7:04	4:04	6	0	"	31°	strong N	Wet	<1/10
10/11	7:05	4:58	10	5	"	33°	light NE	clouds at midnight	<1-20
11/12	7:05	D: 5:24	4	0	"	38°	NW	"	<1-1
12/13	7:06	5:23	0	0	Ita	37°	Strong E.	Clear - Very Soft	2-3
12/14	7:07	5:22	18	9	"	40°	N.W.	"	2-3+
14/15	7:07	5:21	8	3	"	50°	W, S.E.	clear cloud by 100	2-3-1
15/16	Ms 7:40	5:20	0	0	"	49°	N.	Thin clouds	1
16/17	8:50	5:19	4	0	"	48°	Strong E.	clear	1-41
17/18	10:05	5:18	5	2	"	46°	" N.W.	"	2-41
18/19	11:16	5:17	0	0	"	32°	" S.W.	Some haze	<41
			67	21					

# Observing Log

Run No. 91

Date	Program	Plate No.	Emul. Type	Emul. No.	$\alpha$	$\delta$	Filter	Tube Temp
Feb. 13/14	Survey	O-668	103a-O	486,773	5 <sup>h</sup> 0 <sup>m</sup>	+42°		
"	"	E-668	103a-E	X5J2	"	"	46	
"	"	O-669	103a-O	486,773	6 <sup>h</sup> 0 <sup>m</sup>	+42°		
"	"	E-669	103a-E	X5J2	"	"	"	
"	"	O-670	103a-O	486,773	7 <sup>h</sup> 22 <sup>m</sup>	+48°		
"	"	E-670	103a-E	X5J2	"	"	"	
"	"	O-671	103a-O	486,773	8 <sup>h</sup> 30 <sup>m</sup>	+48°		
"	"	E-671	103a-E	X5J2	"	"	"	

# Observing Log

Run No. 41

February, 1954

Date	Program	Plate No.	Emulsion Type	Emulsion No.	$\alpha$	$\delta$	Filter	Tube Temp
Feb 5/6			No Observations					
Feb 6/7	Tests	T-1	103a-E	X5J2	Polar	Alignment		
	"	T-2	"	"	"	"		
	"	T-3	"	423,887	"	"		
	"	T-4	"	"	"	"		
Feb 7/8	Tests	T-5	"	489,182				
	"	T-6	"	"				
	"	F-1	103a-O	420,649	PH-1			
	"	F-2	103a-O	486,773	PH-3			
	Survey	O-661	103a-O	486,773	9 <sup>h</sup> 30 <sup>m</sup>	+42°		
	"	E-661	103a-E	X5J2	"	"		
	"	O-662	103a-O	486,773	10 <sup>h</sup> 24 <sup>m</sup>	+66°		
	"	E-662	103a-E	X5J2	"	"		
Feb 8/9			No Observations					
Feb 9/10		PS-599	103a-O	486,773	Meteor	Calibration		
		PS-600	103a-E	X5J2	"	"		
		PS-601	103a-O	486,773	Seeing			
		PS-601	103a-O	486,773	"			
		SXO-7	103a-O	486,773	8 <sup>h</sup> 40 <sup>m</sup>	-30°		
		SXE-7	103a-E	X5J2	"	"		
Feb 10/11	Survey	O-663	103a-O	486,773	4 <sup>h</sup> 24 <sup>m</sup>	+60°		
	"	E-663	103a-E	X5J2	"	"		
	"	O-664	103a-O	486,773	5 <sup>h</sup> 42 <sup>m</sup>	+54°		
	"	E-664	103a-E	X5J2	"	"		
	"	O-665	103a-O	486,773	6 <sup>h</sup> 48 <sup>m</sup>	+72°		
	"	E-665	103a-E	X5J2	"	"		
	"	O-666	103a-O	486,773	7 <sup>h</sup> 40 <sup>m</sup>	+78°		
	"	E-666	103a-E	X5J2	"	"		
	"	O-667	103a-O	486,773	9 <sup>h</sup> 12 <sup>m</sup>	-12°		
	"	E-667	103a-E	X5J2	"	"		
Feb 11/12	W.C.	PS-602	103a-O	486,773	Plaiades			
	"	PS-603	103a-O	486,773	Castor + Pollux			
	Hubble	PS-604	103a-O	420,649	M81			
	Zwicky	PS-605	103a-E	X5J2	Coma Cluster			
Feb 12/13			No Observations					



## Supply Record

Run No. 41

February 1953

On hand beginning of run: Feb. 5, 1953

D-19	Nacco Conc.	Naccofix	Acetic Acid	Dist. Water
14	20	30	1 1/3	4 gal

Plates:	200" Vac/t	200" Darkroom	48"	open	box	total
420,649	-	-	1	2	-	6
423,887	-	-	-	-	2	2
449,667	12x4	52x4	-	-	-	256
458,884	21	-	13x4	-	1	52
486,773	103x2	-	12x2	-	-	231
486,815	18x2	48x2	2x2	-	-	136
486,826	-	47x2	10x2	-	-	114
486,827	16x2	29x2	-	-	-	90
488,467	47x2	7x2	-	-	-	110
488,520	-	63x2	-	-	-	126
489,182	30x2	-	6x2	-	-	72
X5J2	84x2	-	14x2	-	2	198

Feb. 17 - 3 boxes (-) 486,826 To Pasa. (MINKOWSKI)

Feb 8, to 200" 4 gal D-19

Feb 9 Received 16 gal D-19

On hand end of run: Feb. 19, 1953

D-19	Nacco Conc.	Naccofix	Acetic Acid	Dist. Water
60	16	29	1 gal	6 gal.

420,649	-	-	1x4	-	-
423,887	-	-	-	-	-
449,667	-	64x4	-	-	156
458,884	-	-	13x4	-	-
486,773	73	-	25x2	-	1
486,815	-	66x2	1x2	-	-
486,826	-	47x2	7x2	-	-
486,827	16x2	29x2	1x2	-	90
488,467	47x2	7x2	-	-	110
488,520	-	63x2	-	-	126
489,182	-	30x2	5x2	-	-
X5J2	78x2	-	5	-	3
X6A3	139x2	-	-	-	-

# Observing Schedule

Run No. 42

March 1953

Date	Start	Stop	No. Plates	No. Survey Pair	Observer	Night Temp.	Wind	Sky	Seeing
March 5/6	E: 7:21	Mr. 10:49	3	0	Wi	49°	East	Clear	1-2
6/7	7:22	11:51	8	4	"	45°	"	"	<1-2
7/8	7:23	12:53	10	5	"	49°	"	"	1-3
8/9	7:24	1:51	10	5	"	50°	"	"	3-4
9/10	7:25	2:45	10	5	"	40°	NW	"	<1-3
10/11	7:26	3:33	1	0	"	—	NW	Fog	<1
11/12	7:27	4:15	1	0	"	40°	NW	Thin clouds	3-4
12/13	7:28	4:52	0	0	Ha	—	heavy fog		
13/14	7:29	D: 4:52	9	4	"	42°	S.E.	Clear	2-3-41
14/15	7:30	4:51	6	2	"	40°	E.	Clouds until 2:00	2-4
15/16	7:30	4:50	9	4	"	41°	Calm	Clouds by 2:00	2-4
16/17 Ms	7:44	4:49	4	1	"	42°	Strong W.	"Murky"	1-2+
17/18	8:55	4:48	5	2	"	48°	"	Some haze	1-2-1
18/19	10:06	4:47	3	0	"	40°	Strong N.W.	Clear	1-21
19/20	11:11	4:46	0	0	"	40°	"	Storm	soft 241
			79	32					

# Observing Log

Run No. 42

March 1953

Date	Program	Plate No.	Emulsion Type	Emulsion No.	$\alpha$	$\delta$	Filter
Mar 5/6	Tests	F-1	103a-0	486,773	Focus	PH-1	
	"	F-2	103a-E	X5J2	Focus	PH-3 + #46	
	"	J-1	103a-E	X5J2	Aldcbaru		
Mar 6/7	Survey	O-682	103a-0	486,773	6 <sup>h</sup> 24 <sup>m</sup>	-12°	
	"	E-682	103a-E	X5J2	"	"	
	"	O-683	103a-0	486,773	7 <sup>h</sup> 36 <sup>m</sup>	-18°	
	"	E-683	103a-E	X5J2	"	"	
	"	O-684	103a-0	486,773	8 <sup>h</sup> 52 <sup>m</sup>	+36°	
	"	E-684	103a-E	X5J2	"	"	
	"	O-685	103a-0	486,773	10 <sup>h</sup> 12 <sup>m</sup>	+72°	
	"	E-685	103a-E	X5J2	"	"	
Mar 7/8	Survey	O-686	103a-0	486,773	6 <sup>h</sup> 56 <sup>m</sup>	+66°	
	"	E-686	103a-E	X5J2	"	"	
	"	O-687	103a-0	486,773	7 <sup>h</sup> 48 <sup>m</sup>	+66°	
	"	E-687	103a-E	X5J2	"	"	
	"	O-688	103a-0	486,773	9 <sup>h</sup> 4 <sup>m</sup>	+72°	
	"	E-688	103a-E	X5J2	"	"	
	"	O-689	103a-0	486,773	10 <sup>h</sup> 0 <sup>m</sup>	-18°	
	"	E-689	103a-E	X5J2	"	"	
	"	O-690	103a-0	486,773	10 <sup>h</sup> 30 <sup>m</sup>	+42°	
	"	E-690	103a-E	X5J2	"	"	
Mar 8/9	Survey	O-691	103a-0	486,773	6 <sup>h</sup> 48 <sup>m</sup>	+48°	
	"	E-691	103a-E	X6A3	"	"	
	"	O-692	103a-0	486,773	7 <sup>h</sup> 30 <sup>m</sup>	+84°	
	"	E-692	103a-E	X6A3	"	"	
	"	O-693	103a-0	486,773	9 <sup>h</sup> 12 <sup>m</sup>	+78°	
	"	E-693	103a-E	X6A3	"	"	
	"	O-694	103a-0	486,773	10 <sup>h</sup> 24 <sup>m</sup>	-6°	
	"	E-694	103a-E	X6A3	"	"	
	"	O-695	103a-0	486,773	11 <sup>h</sup> 12 <sup>m</sup>	+36°	
	"	E-695	103a-E	X6A3	"	"	
March 9/10	Survey	O-696	103a-0	486,773	6 <sup>h</sup> 32 <sup>m</sup>	+42°	
	"	E-696	103a-E	X6A3	"	"	
	"	O-697	103a-0	486,773	8 <sup>h</sup> 0 <sup>m</sup>	+42°	
	"	E-697	103a-E	X6A3	"	"	
	"	O-698	103a-0	486,773	8 <sup>h</sup> 40 <sup>m</sup>	+66°	
	"	E-698	103a-E	X6A3	"	"	

Run No 42

Mar. 1953

Date	Program	Plate No.	Emulsion Type	Emulsion No.	$\alpha$	$\delta$	Filter
March 9/10	Survey	O-699	103a-0	486,773	10 <sup>h</sup> 12 <sup>m</sup>	+48°	
	"	E-699	103a-E	X6A3	"	"	#46
	"	O-700	103a-0	486,773	11 <sup>h</sup> 20 <sup>m</sup>	+48°	
	"	E-700	103a-E	X6A3	"	"	"
March 10/11	Asteroid	A-1	103a-0	486,773			
March 11/12	"	A-2	103a-0	486,773			
March 12/13	No observations						
" 13/14	Survey	O-701	103a-0	486,773	7 <sup>h</sup> 30 <sup>m</sup>	+42°	
"	"	E-701	103a-E	X6A3	"	"	46
"	"	O-702	103a-0	486,773	8 <sup>h</sup> 0 <sup>m</sup>	-6°	
"	"	E-702	103a-E	X6A3	"	"	"
"	"	O-703	103a-0	486,773	9 <sup>h</sup> 32 <sup>m</sup>	+60°	
"	"	E-703	103a-E	X6A3	"	"	"
"	"	O-704	103a-0	486,773	13 <sup>h</sup> 12 <sup>m</sup>	+60°	
"	"	E-704	103a-E	X6A3	"	"	"
"	Asteroid	A-3	103a-0	486,773	12	—	
March 14/15	"	A-4	"	"			
"	—	T-1	"	"	7 <sup>h</sup> 12 <sup>m</sup>	0°	—
"	Survey	O-705	"	"	13 <sup>h</sup> 56 <sup>m</sup>	+60°	
"	"	E-705	103a-E	X6A3	13 <sup>h</sup> 56 <sup>m</sup>	+60°	46
"	"	O-706	103a-0	486,773	15 <sup>h</sup> 18 <sup>m</sup>	+48°	
"	"	E-706	103a-E	X6A3	"	"	"
March 15/16	"	O-707	103a-0	486,773	8 <sup>h</sup> 30 <sup>m</sup>	+42°	
"	"	E-707	103a-E	X6A3	"	"	"
"	"	O-708	103a-0	486,773	9 <sup>h</sup> 32 <sup>m</sup>	+60°	
"	"	E-708	103a-E	X6A3	"	"	"
"	"	O-709	103a-0	486,773	10 <sup>h</sup> 46 <sup>m</sup>	+48°	
"	"	E-709	103a-E	X6A3	"	"	"
"	"	O-710	103a-0	486,773	12 <sup>h</sup> 0 <sup>m</sup>	0°	
"	"	E-710	103a-E	X6A3	"	"	"
"	Z	PS-608	103a-0	486,773	Coma Cluster		
March 16/17	Survey	O-711	103a-0	"	10 <sup>h</sup> 0 <sup>m</sup>	+42°	
"	"	E-711	103a-E	X6A3	"	"	"
"	—	PS-609	103a-0	486,773	Coma Cluster		
"	—	A-5	"	"	Asteroid		



Mar. 1953

[illegible]

## Supply Record

Run No. 42

March 1953

On hand beginning of run: March 5, 1953

D-19	NaCCO <sub>2</sub> concentrate	NaCCO <sub>2</sub> Lix	Acetic Acid	Dist. Water		
60	16 gal	29 gal	1+ gal	-		
Plates	200" Vault	200" Darkroom	48"	open	box	total
420,649			1x4			4
<del>423,887</del>						0
449,667		64x4				256
458,884			13x4			52
486,773	73x2		25x2		1	195
486,815		66x2	1x2			133
486,826		47x2	7x2			108
486,827	16x2	29x2	1x2			92
488,467	47x2	7x2				108
488,520		63x2				126
489,182		30x2	5x2			70
X5J2	78x2		5x2		3	169
X6A3	139x2					278

Mm 9 - 4 gal D-19 + 200"

D-19	NaCCO <sub>2</sub> conc.	NaCCO <sub>2</sub> Lix	Acetic Acid	Dist. Water
38	12	27	7/8 gal	6

420,649	-	-	1x4	-	-	4
449,667	-	64x4	-	-	-	256
458,884	-	-	13x4	-	-	52
486,773	88x2	-	2	-	1	181
486,815	-	66x2	1x2	-	-	133
486,826	-	47x2	2x2	-	-	108
486,827	16x2	29x2	1x2	-	-	92
488,467	47x2	7x2	-	-	-	108
488,520	-	63x2	-	-	-	126
489,182	-	30x2	5x2	-	-	70
X5J2	78x2	-	1	-	-	158
X6A3	115x2	-	11	-	2	254

# Plate Test Record

Run No. 42

March, 1953

Date	Emulsion Type	Emulsion No.	Total	Break	Good
6/7	1032E	X552	4	-	4
6/7	1032-0	486,773	4	-	4
March 7	103a-E	X552	4	-	4
"	103a-0	486,773	6	-	6
March 8	"	"	4	-	4
"	103a-E	X6A3	6	-	6
March 9	"	"	4	-	4
"	103a-0	486,773	6	-	6
March 11	"	"	2	-	2
March 12	"	"	2	-	2
"	103a-E	X6A3	2	-	2
March 13	"	"	4	-	4
"	103a-0	486,773	4	-	4
March 14	"	"	8	2	6
"	103a-E	X6A3	6	-	6
March 15	103a-0	486,773	2	-	2
March 16	"	"	6	-	6
"	103a-E	X6A3	4	-	4
March 17	103a-0	486,773	2	-	2

# Observing Schedule

Run No. 43

April - 1953

Date	Start	Stop	No. Plates	No. Survey Pr.	Observer	Temp.	wind	sky	Seeing
April 6/1	E=7:45	Mr=12:33	0	0	H2.			Heavy fog	
7/8	7:49	1:22	0	0	"			storm	
8/9	7:50	2:04	2	0	"	27°	S.W.	Very Poor	Soft <1
9/10	7:51	2:42	2	0	"	31°	Strong W.	clear?	Soft <1
10/11	7:52	3:17	0	0	"	29°	fog until 11:30	W.	<1
11/12	7:53	3:49	4	2	"	34°	N.W.	clear	1-2, <1
12/13	7:54	D=4:08	6	3	"		S.W.	"	<1-2, 1
13/14	7:55	4:07	4	2	Wi.	38°	NW	Wet	<1-2
14/15	Ms=7:50	4:05	12	6	"	48°	Calm	Clear	3-4
15/16	9:00	4:04	9	4	"	48°	Calm	Wet	3-4
16/17	10:06	4:03	0	0	"		clouds		<1
17/18	11:05	4:02	0	0	"		fog		<1
18/19	11:56	4:02	2	0	"	54°	clouds		3-4
19/20	12:39	4:00	0	0	"	38°	overcast	fog	<1
			41	17					



# Observing Log

Run No. 43

April - 1953

Date	Program	Plate No.	Emul. Type	Emul. No.	$\alpha$	$\delta$	Filter	
April 6/4	—	No	Observations					
" 7/8	—	"	"					
" 8/9	Focus	F-1	103a-o	486,773			—	PH-1
"	"	F-2	103a-E	X6A3			4L	PH-3
April 9/20	—	PS-612	103a-o	486,773	4 <sup>h</sup> 25 <sup>m</sup>	+16°	4L	"
"	—	PS-613	"	"	"	"	4L	PH-1
April 10/11	—	No	Observations					
April 11/12	Survey	O-714	103a-o	486,773	11 <sup>h</sup> 20 <sup>m</sup>	+72°		
"	"	E-714	103a-E	X6A3	"	"	4L	
"	"	O-715	103a-o	486,773	14 <sup>h</sup> 34 <sup>m</sup>	+54°		
"	"	E-715	103a-E	X6A3	"	"	"	
April 12/13	"	O-716	103a-o	486,773	12 <sup>h</sup> 0 <sup>m</sup>	+6		
"	"	E-716	103a-E	X6A3	"	"	"	
"	"	O-717	103a-o	486,773	13 <sup>h</sup> 0 <sup>m</sup>	+66		
"	"	E-717	103a-E	X6A3	"	"	"	
"	"	O-718	103a-o	486,773	13 <sup>h</sup> 52 <sup>m</sup>	+66		
"	"	E-718	103a-E	X6A3	"	"	"	
April 13/14	"	O-719	103a-o	486,773	11 <sup>h</sup> 30 <sup>m</sup>	+42°		
"	"	E-719	103a-E	X6A3	"	"	"	
"	"	O-720	103a-o	486,773	11 <sup>h</sup> 54 <sup>m</sup>	+48°		
"	"	E-720	103a-E	X6A3	"	"	"	
April 14/15	"	O-721	103a-o	486,773	9 <sup>h</sup> 0 <sup>m</sup>	+42°		
"	"	E-721	103a-E	X6A3	"	"	"	
"	"	O-722	103a-o	486,773	10 <sup>h</sup> 48 <sup>m</sup>	+6°		
"	"	E-722	103a-E	X6A3	"	"	"	
"	"	O-723	103a-o	486,773	11 <sup>h</sup> 44 <sup>m</sup>	+60°		
"	"	E-723	103a-E	X6A3	"	"	"	
"	"	O-724	103a-o	486,773	12 <sup>h</sup> 30 <sup>m</sup>	+84°		
"	"	E-724	103a-E	X6A3	"	"	"	
"	"	O-725	103a-o	486,773	14 <sup>h</sup> 44 <sup>m</sup>	+72°		
"	"	E-725	103a-E	X6A3	"	"	"	
"	"	O-726	103a-o	486,773	15 <sup>h</sup> 50 <sup>m</sup>	+54°		
"	"	E-726	103a-E	X6A3	"	"	"	
April 15/16	"	O-727	103a-o	486,773	10 <sup>h</sup> 0 <sup>m</sup>	+84°		
"	"	E-727	103a-E	X6A3	"	"	"	
"	"	O-728	103a-o	486,773	12 <sup>h</sup> 08 <sup>m</sup>	-24°		
"	"	E-728	103a-E	X6A3	"	"	"	

Date	Program	Plate No	Emul. Type	Emul No.	d	δ	Filter		
April 15/16	Survey	0-729	103a-0	486,773	12°40'	+54°			
	"	E-729	103a-E	X6A3	"	"	#46		
	"	0-730	103a-0	486,773	14°44'	+66°			
	"	E-730	103a-E	X6A3	"	"	"		
	Zwicky	PS-614	103a-0	486,773	12°57'10"	+28°16'5"	Coma Cluster		
April 16/17		No	Observations						
April 17/18		No	Observations						
April 18/19		Special	103a-0	486,773	S.A. 57				
	Zwicky	PS-615	103a-0	486,773	M51				
April 19/20		No	Observations						

# Supply Record

Run No. 43

April - 1953

on hand beginning of run: April, 1953

D-19	Nuccofix conc.	Nuccofix	Acetic Acid	Dist. Water		
33	14	27	4 3/4	6		
Plates	200" Vault	200" Darkroom	48"	open	box	Total
420,649	—	—	1x4	—	—	4
449,667	—	64x4	—	—	—	256
458,884	—	—	13x4	—	—	52
486,773	88x2	—	2	—	1	181
486,815	—	66x2	1x2	—	—	133
486,826	—	47x2	7x2	—	—	108
486,827	16x2	29x2	1x2	—	—	92
488,467	47x2	7x2	—	—	—	108
488,520	—	63x2	—	—	—	126
489,182	—	30x2	5x2	—	—	70
X5J2	78x2	—	1	—	—	158
X6A3	115x2	—	11x2	—	2	254

4-4-53 4gal. D-19 To 200"

4-6-53 4" Conc. " "

From 200" Vault 9 boxes (2) 486,773

" " " 12 "

12 "

X6A3

April 15

On hand end of run: April 20, 1953

D-19	Nuccofix	Vaccotix	Acetic Acid	Dist. Water		
23 1/3	16	26	4 2/3	6		
Plates	200" Vault	200" Darkroom	48"	open	box	Total
420,649	—	—	4x1	—	—	4
449,667	—	4x64	—	—	—	256
458,884	—	—	4x13	—	—	52
486,773	2x51	—	2x11	—	2	126
486,815	—	66x2	1x2	—	—	133
486,826	—	47x2	7x2	—	—	108
486,827	16x2	29x2	1x2	—	—	92
488,467	47x2	7x2	—	—	—	108
488,520	—	63x2	—	—	—	126
489,182	—	30x2	5x2	—	—	70
X5J2	78x2	—	—	1	—	157
X6A3	2x103	—	12x2	—	4	234

# Plate Test Record

Run No. 43

April - 1953

Date	Emul. Type.	Emul. No.	Total	Breat	Good			
April 9	103a-O	486,773	6	-	6			
"	103a-E	X6A3	6	-	6			
" 12	103a-O	486,773	2	-	2			
" 13	"	"	2	-	2			
" "	103a-E	X6A3	2	-	2			
April 14	"	"	6	-	6			
"	103a-O	486,773	4	-	4			
April 15	"	"	6	1	5	1 defective in box		
"	103a-E	X6A3	4	-	4			
April 16	"	"	4	-	4			
"	103a-O	486,773	4	-	4			



# Observing Schedule - Run No. 44

May - 1953

Date	Start	Stop	No. Plates	No. of Survey Pr.	Observer	Temp.	Wind	Sky	Seeing
May 4/5	E=8:16	M=12:04	3	0	Wi	54°	Strong NE	clear	<1-2
5/6	8:17	12:42	0	0	"		SE	Clouds	
6/7	8:18	1:16	6	3	"	51°	SW	Clear	<1-2
7/8	8:19	1:47	4	0	" Ab	40°	W	Some Clouds	<1-2
8/9	8:20	2:19	2	0	" "	33°	Strong W	Some Fog	<<1
9/10	8:21	<del>3:51</del>	8	2	" "	37°	NW	Some Clouds	1-3
10/11	8:22	<del>3:24</del>	7	3	" "	42°	NW	haze	1-3
11/12	8:23	D=3:29	4	1	" "	?	?	?	<1-2
12/13	8:24	3:28	1	0	H3	45	N.W.	Thin Clouds	<1-1
13/14	8:25	3:28	3	0	"	50	W.	Clouds Tight by 12:00	1-2+
14/15	M=8:51	3:26	0	0	"	32	S.W.	Storm	
15/16	9:45	3:25	0	0	"			"	
16/17	10:32	3:28	0	0	"			Heavy fog	
17/18	11:12	3:28	4	2	"	47	N.	Clear - Clouds by 1:15	2-3
18/19	11:45	3:22	5	2	"	55	N.W.	Some Clouds	2-3-1
19/20	12:14	3:21	0	0	"	50	N. Strong	clouds	<1
			47	14					

# Observing Log - Run No. 44

## May - 1953

Date	Program	Plate No.	Emul. Type	Emul. No.	$\alpha$	$\delta$	Filter
May 4/5	Tests	F-1	103a-0	486,773	Focus plate		PH-1
	"	F-2	103a-E	X6A3	Focus plate		PH-3 + #46
	"	PS 616	103a-0	486,773	10 <sup>h</sup>	0°	
May 5/6		No	Observations				
May 6/7	Survey	O-731	103a-0	486,773	10 <sup>h</sup> 44 <sup>m</sup>	+36°	
	"	E-731	103a-E	X6A3	"	"	#46
	"	O-732	103a-0	486,773	12 <sup>h</sup> 28 <sup>m</sup>	+72°	
	"	E-732	103a-E	X6A3	"	"	"
	"	O-733	103a-0	486,773	13 <sup>h</sup> 48 <sup>m</sup>	+78°	
	"	E-733	103a-E	X6A3	"	"	"
May 7/8	Tests	T-1	103a-E	486,827	Polar	Plate	
	"	F-3	103a-0	458,884	Focus	PH-1	
	"	F-4	103a-E	X5J2	Focus	PH-3	#48
	"	F-5	103a-E	X5J2	Focus	PH-3	#47
May 8/9	"	T-2	103a-E	486,815	Polar Align.	PH-3	#48
	Abell	PS 617	103a-0	458,884	M51	PH-1	
May 9/10	Test	T-3	103a-E	486,815	Polar Alignment.		
	Zwicky	PS-618	103a-0	458,884	9 <sup>h</sup> 55 <sup>m</sup>	+29°	
	Abell	PS-619	103a-0	458,884	9 <sup>h</sup> 51 <sup>m</sup>	+69°	M81
	Test	F-6	103a-0	420,649	PH-3	No	Filter
	Survey	O-734	103a-0	486,773	12 <sup>h</sup> 16 <sup>m</sup>	+78°	
	"	E-734	103a-E	X6A3	"	"	#48
	"	O-735	103a-0	486,773	15 <sup>h</sup> 0 <sup>m</sup>	+42°	
	"	E-735	103a-E	X6A3	"	"	#48
May 10/11	Test	F-7	103a-0	420,649	PH-3		
	Survey	O-736	103a-0	486,773	10 <sup>h</sup> 8 <sup>m</sup>	+54°	
	"	E-736	103a-E	X6A3	"	"	#48
	"	O-737	103a-0	486,773	13 <sup>h</sup> 12 <sup>m</sup>	-18°	
	"	E-737	103a-E	X6A3	"	"	"
	"	O-738	103a-0	486,773	14 <sup>h</sup> 0 <sup>m</sup>	-6°	
	"	E-738	103a-E	X6A3	"	"	"
May 11/2	"	E-739	103a-E	X6A3	10 <sup>h</sup> 16 <sup>m</sup>	+60°	*47
	"	<del>O-739</del>	103a-0	486,773	"	"	
	"	E-740	103a-E	X6A3	13 <sup>h</sup> 0 <sup>m</sup>	-24°	*47
	"	O-740	103a-0	486,773	"	"	

Date	Program	Plate No.	Emul. Type	Emul. No.	d	δ	Filter		
May 12/13	Zwicky	PS-620	103a-0	486,773	Coma Cluster				N.G. Wrong Focus
May 13/14	"	PS-621	"	"	"				
"		F-8	"	"					PH-1
"		F-9	103a-E	X6A3					PH-3 + *47
May 14/15	—	No Observations							
May 15/16	—		"						
May 16/17	—		"						
May 17/18	Survey	O-741	103a-0	486,773	15 <sup>h</sup> 12 <sup>m</sup>	-18°			
"	"	E-741	103a-E	X6A3	"	"	* 46		
"	"	O-742	103a-0	486,773	16 <sup>h</sup> 28 <sup>m</sup>	+66°			
"	"	E-742	103a-E	X6A3	"	"	"		
May 18/19	—	PS-622	103a-0	486,773	16 <sup>h</sup> 40 <sup>m</sup>	+36°	—		
"	Survey	O-743	"	"	16 <sup>h</sup> 30 <sup>m</sup>	+42°			
"	"	E-743	103a-E	X6A3	"	"	46		
"	"	O-744	103a-0	486,773	17 <sup>h</sup> 44 <sup>m</sup>	+59°			
"	"	E-744	103a-E	X6A3	"	"	"		
May 19/20	—	No Observations							

# Supply Record - Run No. 44

May - 1953

on hand beginning of run

D-19	Narcofix Conc.	Narcofix	Acetic Acid	Dist. Water		
23 1/2	16 gal	25	4 3/4	6 gal		
Plates	200" Vault	200" darkroom	48"	open	box	Total
O 420,649	—	—	1x4	—	—	4
O 449,667	—	64x4	—	—	—	256
O 458,884	—	—	13x4	—	—	52
O 486,773	51x2	—	11x2	—	2	126
E 486,815	—	66x2	1x2	—	—	134
E 486,826	—	47x2	7x2	—	—	108
E 486,827	16x2	29x2	1x2	—	—	92
E 488,467	48x2	7x2	—	—	—	110
E 488,520	—	63x2	—	—	—	126
E 449,182	—	30x2	5x2	—	—	70
E X5J2	78x2	—	—	2	—	158
E X6A3	103x2	—	12x2	—	4	234

Received, May 7, 1953, 47 gal O-19

4 gal O-19

4 gal Narcofix Conc.

} to 200" on May 7

FROM 200" Vault 21x2 (42) X6A3

" " " 16x2 (32) 486,773

[FROM PASADENA

5-15-53 243x2 (X5D3)

on hand end of run May 20, 1953

D-19	Narcofix Conc.	Narcofix	Acid	Dist. Water		
56	8	24	4 1/2	6		
O 420,649	—	—	—	2	—	2
O 449,667	—	64x4	—	—	—	256
O 458,884	—	—	12x4	—	—	48
O 486,773	35x2	—	12x2	—	—	104
E { 486,815	—	66x2	—	—	—	132
E { 486,826	—	47x2	7x2	—	—	108
E { 486,827	<del>16x2</del>	<del>29x2</del>	—	—	—	90
E { 488,467	—	55x2	—	—	—	110
E { 488,520	—	63x2	—	—	—	126
E { 449,182	—	30x2	5x2	—	—	70
E { X5J2	78x2	—	—	—	—	156
E { X6A3	82x2	<del>15x2</del>	37x2	—	—	218
O X5D3	243x2	—	—	—	—	486



# Plate Testing Record

Run No. 44.

Date	Type Emulsion	Emulsion No	Good	Break	Total	Remarks
May 6, 1953	103a-E	X6A3	1	1	2	
"	103a-O	486,773	3	1	4	Broke up stairs
May 7, 1953	"	"	4	-	4	
"	103a-E	X6A3	4	-	4	
"	"	X5J2	2	-	2	
"	103a-O	458,884	1	-	1	
"	103a-E	486,827	1	1	2	Broken in box
"	103a-E	486,815	2	-	2	
" 8, 53	103a-O	458,884	1	-	1	
" 9, 53	103a-O	458,884	2	-	2	
"	"	420,649	1	-	1	
May 10	103a-E	X6A3	2	-	2	
"	103a-O	486,773	4	-	4	
May 11	103a-E	X6A3	2	-	2	
	103a-O	486,773	2	-	2	
" 13	"	"	4	-	4	
"	103a-E	X6A3	2	-	2	
May 18	103a-O	486,773	2	-	2	

# Observing Schedule - Run No. 45

June - 1953

Date	Program	Plate No.	Emul. Type	Emul. No.	$\alpha$	$\delta$	Filter
June 3/4	Tests	F-1	103a-E	X6A3 486,773	Focus	PH-3 +	#47
	"	F-2	103a-0	486,773		PH-1	
	"	T-1	103a-E	X6A3	Polar Alignment		
June 4/5		No Observations					
June 5/6		No Observations					
June 6/7		No Observations					
June 7/8	Test	F-3	103a-0	X5D3	Focus	PH-3	
June 8/9	Test	Q-X5D3	103a-0	X5D3	Q plate		
	Survey	O-745	103a-0	486,773	17 <sup>h</sup> 20 <sup>m</sup>	+66°	
	"	E-745	103a-E	X6A3	"	"	#47
June 9/10	Survey	O-746	103a-0	486,773	16 <sup>h</sup> 48 <sup>m</sup>	-18°	
	"	E-746	103a-E	X6A3	"	"	"
	"	O-747	103a-0	486,773	17 <sup>h</sup> 12 <sup>m</sup>	-18°	
	"	E-747	103a-E	X6A3	"	"	"
	"	PS-623	103a-E	X6A3	20 <sup>h</sup> 50 <sup>m</sup>	+44°	"
June 10/11	Survey	O-748	103a-0	486,773	16 <sup>h</sup> 0 <sup>m</sup>	+6°	
		E-748	103a-E	X6A3	"	"	"
June 11/12		No Observations					
June 12/13	—	PS-624	103a-0	486,773	Coma Cluster		—
"	Survey	O-749	103a-0	X5D3	14 <sup>h</sup> 48 <sup>m</sup>	0°	
"	"	E-749	103a-E	X6A3	"	"	47
"	"	O-750	103a-0	X5D3	18 <sup>h</sup> 0 <sup>m</sup>	-18°	
"	"	E-750	103a-E	X6A3	"	"	"
"	—	PS-625	103a-0	X5D3	20 <sup>h</sup> 50 <sup>m</sup>	+44°	
"	—	PS-626	103a-E	X6A3	"	"	"
June 13/14	Survey	O-751	103a-0	X5D3	14 <sup>h</sup> 48 <sup>m</sup>	-6°	
"	"	E-751	103a-E	X6A3	"	"	"
"	"	O-752	103a-0	X5D3	15 <sup>h</sup> 52 <sup>m</sup>	+72°	
"	"	E-752	103a-E	X6A3	"	"	"
"	"	O-753	103a-0	X5D3	17 <sup>h</sup> 30 <sup>m</sup>	+42°	
"	"	E-753	103a-E	X6A3	"	"	"
"	"	O-754	103a-0	X5D3	20 <sup>h</sup> 30 <sup>m</sup>	+42°	
"	"	E-754	103a-E	X6A3	"	"	"
<del>June 14/15</del>							

Date	Program	Plate No.	Emul. Type	Emul. No.	$\alpha$	$\delta$	Filter
June 14/15	Survey	O-755	103a-O	X5D3	15 <sup>h</sup> 24 <sup>m</sup>	+60°	
"	"	E-755	103a-E	X6A3	"	"	#47
"	"	O-756	103a-O	X5D3	17 <sup>h</sup> 0 <sup>m</sup>	+72°	
"	"	E-756	103a-E	X6A3	"	"	"
"	"	O-757	103a-O	X5D3	20 <sup>h</sup> 48 <sup>m</sup>	+30°	
"	"	E-757	103a-E	X6A3	"	"	"
June 15/16	No	Observations					
June 16/17	No	Observations					
June 17/18	No	Observations					
June 18/19	No	Observations					

# Supply Record - Run No. 45

## June - 1953

on hand beginning of run

on hand beginning of 1941						
D-19	Nacco. Conc.	Naccofix	Acid	Dist. W.		
57	1	24	4	6		
Plates	200" Vault	200" darkroom	48"	open	box	Total
420,649	-	-	-	2	-	2
449,667	-	64x4	-	-	-	256
458,884	-	-	12x4	-	-	48
486,773	35x2	-	17x2	-	-	104
486,875	-	66x2	-	-	-	132
486,826	-	47x2	7x2	-	-	108
486,827	-	45x2	-	-	-	90
488,467	-	55x2	-	-	-	110
488,520	-	63x2	-	-	-	126
489,182	-	80x2	5x2	-	-	70
X5J2	78x2	-	-	-	-	156
X6A3	82x2	-	27x2	-	-	218
X5D3	243x2	-	-	-	-	486
8 gal Naccofix Conc. Rec'd June 3.						
June 3rd 3 boxes X5D3 from 200"						
Rec'd June 5, 24 gal naccofix conc.						
June 8, 4 boxes X5D3 from 200"						
29(35?)	36	23	4 1/2	5		
420,649	-	-	-	2	-	2
449,667	-	64x4	-	-	-	256
458,884	-	-	12x4	-	-	48
486,773	35x2	-	3x2	-	1	77
486,815	-	66x2	-	-	-	132
486,826	-	47x2	7x2	-	-	108
486,827	-	45x2	-	-	-	90
488,467	-	55x2	-	-	-	110
488,520	-	63x2	-	-	-	126
489,182	-	80x2	5x2	-	-	70
X5J2	78x2	-	-	-	-	156
X6A3	82x2	-	15x2	-	5	199
X5D3	243x2	-	29x2	-	6	468

}	O	
	To 200"	
	4 gal. D-19	
	}	E
		O
from 200"		
4 boxes	X5D3	
30 "	"	



# Plate Testing Record

Run No. 45

Date	Type Emulsion	Emulsion No.	Good	Break	Total	Remarks
June 3	103a-O	486 773	2	—	2	
"	103a-E	X6A3	2	—	2	
June 4	103a-O	X5D3	6	—	6	
"	103a-O	486, 773	6	—	6	
June 8	"	"	2	—	2	
"	103a-E	X6A3	6	—	6	
June 9	103a-O	486, 773	2	—	2	
"	"	"	9	1	10	1 cracked in box
June 10	"	"	4	—	4	
" 12	"	"	2	—	2	
"	103a-E	X6A3	4	—	4	
"	103a-O	X5D3	4	—	4	
June 13	"	"	4	—	4	
"	103a-E	X6A3	4	—	4	
June 14	"	"	4	—	4	
"	103a-O	X5D3	4	—	4	
June 15	"	"	4	—	4	
"	103a-E	X6A3	4	—	4	